In Symposium: **Innovative interventions to support fathers' mental-health,**

Chair; Francine de Montigny

What research has taught us, in regard to fathers' perinatal mental health?

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Abstract

1. Objectives

To describe how research has evolved, in regard to focusing on fathers' perinatal mental health, or not .

2. Methods

By analyzing main international publications since the 80ies, we have pulled out some points of evolution in the way the information, collected on fathers' mental-health during the perinatal period, is treated in the results and conclusions.

3. Results

From the late 80ies up to very early 21st century, characteristics of fathers/partners have been mainly mentioned as risk-factors for women's mental-health and child development. Even in studies concerning both parents' health, the conclusions were mainly focused on women's health and mothering. Then a few studies were published showing the impact of a partner's mental-health on the other one, and quite similar other risk-factors for both parents mental-health. After 2010, in different countries, more and more studies on men's mental health and care and on specificities of father-child interaction and its impact on child development have been published

4. Conclusion

Choices made by researchers and their results will be discussed in relation with the social representations of the father's role at those different periods,. Prevention of fathers' mental-health and support to fatherhood should be more promoted.

5. Key words : father, fatherhood, men's mental-health

6. References

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Mother's postnatal stress: an investigation of links to various factors during pregnancy and post-partum

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Abstract
A high level of parental stress has long-term effects on health, such as dysfunction of parent-child interaction. Mental illness can be predictors of high parental stress and there are evidence for a relationship between parenting stress and postnatal depression
The aim of this study was to examine parental stress among Swedish women and identify different factors linked to women's parental stress.
Method: Data from a clinical study were analysed using odds ratios with a 95% confidence interval (CI) a comparison was made between women who estimated stress < 75th percentile and the women who estimated stress > 75th percentile and analysed with the explanatory variables. Findings: 279 women responded to the total parental stress index. Less than very good mental health after birth were strongly associated with parents ' stress and the strongest association was found between postpartum depression and stress in subscale *incompetence*. Multiparity was associated with high stress in two subscales and lower education was a protective factor for stress in nearly all subscales.
Conclusions: Depressive symptoms and perceived mental health post-partum is the most important factor related to high parental stress, and according to the results, depressive symptoms postpartum has the strongest association with stress.

Keyword: Parental stress, depression, pregnancy, postpartum, women

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Partners to Parents: Development of an On-line Intervention for Enhancing Partner Support and Preventing Perinatal Depression and Anxiety

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Objectives/Background. Couples-based interventions to prevent perinatal depression and anxiety in men and women are needed to optimise parental wellbeing and infant mental health. Current interventions are limited by their focus on maternal mental health, postnatal outcomes, and a reliance on professionals for their delivery. This paper describes the development of *Partners to Parents*, an on-line intervention for preventing perinatal depression and anxiety focused on enhancing partner support that is endorsed by empirical evidence (Pilkington, Milne, Cairns, Lewis, & Whelan, 2015) and expert consensus (Pilkington, Cairns, Milne, & Whelan, in press).

Methods. Individual usability testing sessions were conducted with 12 parents in the perinatal period (seven women and five men) to assess the accessibility, quality, and relevance of the website. A deductive coding scheme was applied using *NVivo 10* to identify comments relating to system and content quality of the website, as well as positive and negative comments.

Results. The results of the usability testing yielded more than 250 comments on system and content quality, potential barriers to accessing the website, and suggestions for improvement. This feedback was used to update the design of the Partners to Parents intervention.

Conclusion/Discussion. The usability testing sessions suggested that the mothers and fathers involved perceived the website to be a valuable new resource. Consultation with potential users of the website enabled refinement of the content and design of the web-based intervention.

Key words. Depression, partner support, prevention,

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The role of Oxytocin Receptor gene (OXTR) DNA Methylation in human behaviour: a review of the studies to date and future directions.

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Biography: Catherine is currently a part-time psychiatric consultant for Barwon Health service, Geelong and including Victorian PEHP (perinatal emotional health program) until December 2015. Catherine also works at The Geelong Clinic, in private psychiatric practice as well as having an honorary senior lecturer post at Deakin University Medical School, Geelong.

She has registered for a PhD with Deakin University with the intention of studying the epigenetics of the Oxytocin receptor gene. She has worked in a research capacity with the Australian Temperament Project (ATP) since 2013 using rare transgenerational and postnatal behavioural data. The ATP has followed the development of over 2000 Victorian children from infancy to adulthood, and is now following the 3rd Generation (G3) and is one of the longest running studies of its kind in Australia.

Category: Cutting Edge – Epigenetics

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Objective/Background: Social neuroscience is exemplified by the oxytocin, a neuropeptide that modulates human social interaction. Accumulating evidence in epigenetics of the oxytocin pathway and its contribution to human social relationships are directing interest in this field. This presentation reviews the current research examining the epigenetics of the Oxytocin receptor gene (*OXTR)* in human behaviour.

Methods: A systematic review identified 11 studies relevant to the epigenetics of the *OXTR* following a search of four databases covering the period up to July 2015

Results: Though the studies to date are limited & demonstrate heterogeneity which makes comparisons difficult, certain trends can be observed from the results. All of the identified studies focussed on DNA methylation as the epigenetic mechanism. Specific genetic variations in *OXTR* have been identified which add complexity to the research. The theme of human behaviour relates to mood, behaviour, conduct social and eating disorders.

Conclusion/Discussion: The role of epigenetics/DNA methylation in human social relationships is a relatively new but rapidly advancing area of investigation. Though differing results have been demonstrated in this review, this can reflect the dearth of relevant studies. It is crucial in future studies to attempt to link all the relevant factors including intergenerational studies reflecting on the methylation status, genetic variations and phenotypes of parents followed through to the changes demonstrated in the offspring. Longitudinal cohort studies are ideal for investigating how epigenetic patterns change over time and between generations to determine clearer scientific validity regarding the *OXTR* gene.

3 key words: Oxytocin receptor gene, epigenetics, DNA Methylation

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Abstract: Integrating Postpartum Mental Health Screening into a Multi-site Pediatrics System

Screening for perinatal mental health is endorsed by the American College of Obstetrics and Gynecology and recently by the U.S. Preventive Services Task Force. The American Academy of Pediatrics in 2010 recommended screening new moms at the well child visit. Many recognize the importance of screening for maternal mental health but screening needs to not put undue burden on an overburdened medical system in order to be effective. Additionally screening creates the imperative to refer for follow up and treatment. This has traditionally been one of the biggest barriers to screening amongst pediatricians who do not have the training or desire to treat the mother. One of the most common reasons for not screening is the lack of adequate resources in the community for referrals. Our women's mental health clinic has been awarded a large grant from Texas Health and Human Services to institute screening at the two week newborn visit in pediatricians' offices. This screening has been instituted in offices of varied socioeconomic status and mixed payers from insured to no insurance. This workshop will focus on our experience instituting screening with the Edinburgh Postnatal Depression Scale (EPDS), a referral system by using a standardized training for pediatricians and their staff, using the electronic medical record to trigger screening and to record data, and a computerized referral to a mental health practitioner. We will present data showing a successful program in a large urban pediatrics system and what we believe has led to those successes and the barriers to screening, referrals, and follow up that remains. Audience participation will be a large part of our workshop as we invite others to share their experiences including pediatricians in women's mental health screening.

Key words: Pediatricians, Screening, EPDS

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Listening Visits Delivered by U.S. Point-of-Care Providers: Sustainability of Treatment Gains

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Objective: Depression in low-income, ethnic-minority mothers is prevalent [1, 2]. Although treatments delivered by specialists are difficult to access by this at-risk group, treatments delivered by non-mental health specialists who are already working with women as part of ongoing health care or social services (i.e., point-of-care providers) appear to provide a promising and cost-effective alternative. One such approach, Listening Visits (LV), developed and validated in the U.K.[3], was recently evaluated in U.S. home-visiting settings and reported successful outcomes [4]. Despite the robustness of empirical evidence for treatments like LV, considerable skepticism continues to surround treatments delivered by non-mental health specialists, as evidenced by the longstanding debate about the comparative effectiveness of specialist vs. non-specialist treatment providers [5, 6]. To address this issue of the sustainability of LV, this talk will present results from the follow-up phase of the two-arm, four-site randomized controlled trial of LV delivered by U.S. point-of-care providers to impoverished mothers with mild to moderate depression [7].

Method. Women (N=66) were randomized to immediate (treatment) or delayed LV (control) and completed assessments (depression & quality of life) at 8- and 16 weeks post enrollment. The 16-week assessment that is the focus of this presentation constitutes the follow-up phase, assessing the sustainability of treatment gains in the immediate treatment group and treatment effects in the delayed group.

Results: Treatment gains previously observed in women completing LV immediately were enhanced during the 8-week follow-up period. Women who were originally assigned to a wait-list control condition (consisting of usual care) experienced significant improvement in depressive symptoms and adjustment during the 8 weeks when they received LV.

Conclusions: Results demonstrate the sustainability of treatment gains resulting from LV delivered by point-of-care providers, and provide further evidence of the effectiveness of LV regardless of whether treatment begins immediately or after several weeks.

Keywords: Listening Visits, depression, sustainability

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Title: **Perinatal Mental Health Complications: The Access to Care Conundrum**

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At the conclusion of this in-conference workshop, participants will be able to:

1. Identify the macro-level access to care issues such as United States federal policies, professional associations' policies/practices and debates, and health insurance reimbursement policies. Such policies include "Brining Postpartum Depression Out of the Shadows Act of 2015", "Improving Treatment for Pregnant and Postpartum Women Act of 2015", and "The Family Medical Leave Act". Professional policies will include the following: OB/GYN, pediatrics, family medicine, and the psychiatric association. Professional debates over who should screen and how to cover treatment costs will be discussed.
2. Identify the mezzo-level access to care issues in the United States such as limited medical training, limited mental health training, underground referral networks, and limited treatment options. The discussion will promote the importance of multidisciplinary collaboration and increasing the number of perinatal mood and anxiety disorders specialists.
3. Identify the micro-level access to care issues such as maternal/paternal perceptions of self, comfort discussing mental health changes, common fears, and common barriers such as finances, minimal supports, distance from care providers and child care needs

Key words: policies, education, access to care

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Title: **A Swaddling Community of Care: Assisting Families with Perinatal Mental Health Complications Using Multidisciplinary Collaborations**

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At the conclusion of this In-Conference Workshop, the participants will be able to:

1. Understand socio-cultural theories and how these apply to providing multidisciplinary care for perinatal mental health changes. The myth of parenthood, relational-cultural theory, and societal expectations including attitudes toward mental health, parental expectations, idealized femininity, the silencing process and the connections to perinatal mental health complications will be discussed.
2. Identify the different roles and supports medical and mental health professionals can provide to assist the family.
3. Identify the different roles and supports family and friends can provide to assist the family.
4. Identify the different roles and supports the community offers to assist the family

Key words: multidisciplinary care, support, community-of-care

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Marce Conference Abstract

Melbourne September 26-28, 2016

Perinatal and Infant Mental Health Collaborative Day Program: a research project.

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Key words: Collaborative Day Program

Objective/Background:
Perinatal mental illness impacts on an infant's earliest neurological, social and emotional development. With 15% of Australian women diagnosed with a perinatal mental illness there is an urgent need for the development of responsive perinatal and infant mental health programs. The Queensland Centre for Perinatal and Infant Mental Health (QCPIMH) is investigating the impact of a psycho-educational day program for mothers with a perinatal mental illness and their infants. The objectives of the program are to:

- Improve the mother's mental health
- Improve the mother-infant relationship
- Improve knowledge, competence and confidence in parenting
- Improve the social and emotional development of the infant

Methods
The paper will explore the development of a perinatal and infant mental health day program between three collaborating services, in public mental health service sites across Queensland. The sites include three regional areas and a large urban area involving approximately 64 mothers attending the day program groups. The research replicates a small pilot program conducted in Brisbane in 2009, published in *Australasian Psychiatry* (2013). Services involved in the delivery of the program are Adult Mental Health, Child and Youth Mental Health (Infant) and Community Child Health Services. Evaluation is a process of pre and post research measures taken at 6 weeks and 3 months post intervention and feedback questionnaires completed by both participants and clinicians delivering the program.

Discussion
The discussion will focus on the development of the program and the early findings from the research.

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The Development of Perinatal Mental Health Care in Japan an update
～Apprenticeships with support from the UK ～

Keiko Yoshida (Department of Child Psychiatry, Kyushu University Hospital)

Routine physical checks have been carried out on Japanese mothers and babies since 1965 but mental health was first monitored in a study funded by the Japanese Ministry of Health in 1992. The work revealed an incidence of postnatal depression of 12% in the general population (Yoshida et al 1997) and 17% in women with physical complications of pregnancy (Yamashita et al, 2000).

The first community study, on health visitors' caseloads, was carried at the Health Centre in 1998. The results showed that 28% of mothers who had health visitor's support experienced depression within 12 months of the birth (Ueda et al, 2006).

A nation-wide training programme for health visitors and midwives was introduced using three simple questionnaires to measure biopsychosocial vulnerabilities, screen for depression and detect failures of maternal bonding. This survey found that 13.9% of mothers (N=3370) were depressed. Maternal bonding failures were predicted by the mother's feeling towards her infant at the early postnatal stage.

In 2015 the Japanese Ministry of Health and Labour announced an intensive programme to protect infants from abuse. Obstetricians and midwives will carry out screening and provide primary emotional support to at-risk pregnant women.

A symposium is proposed to support this initiative with four sessions below.

1. A director of local health authority will present how community- based perinatal service developed (Suzumiya and Yoshida)

2. Two obstetricians will present work from a model prefecture where all obstetricians carry out antenatal mental check as routine (Akimoto and Oyama).

3. Two liaison psychiatrists will describe a study which found that 3-10% of perinatal woman require psychiatric input (Seino and Kikuchi).

4. Finally from the UK, a pioneer psychiatrist (Gregoire) will describe the organisation of an integrated care system ranging from primary care to inpatient treatment.

Symposium abstract

Mother-baby units (MBUs): new clinical and research reports from UK, France, India and Belgium

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Presenters

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Objectives of the symposium is to present new clinical reports and researches from data collected in Mother-bay units in different countries and to discuss best practices and effectiveness for joint parents-infant mental health care.

Methods are diverse: A process evaluation within a quasi-experimental cohort study investigating the nature of interventions provided for women with severe postnatal disorders by three service types for mothers and their families, including MBUs, home treatment teams and acute wards across England; A statistical analysis on French MBU data collection to assess demographic and perinatal variables related to (i) a mixed mood state in the mother (ii) the request for child foster-care; A validation study of a Scale-to-Rate-Maternal-Behaviour in MBU's patients in India; and finally an assessment of improvement of mental health care for women in a Mother-Baby-Psychiatric-Day-Hospital.

Results: Howard L.'s team presents the extent of interventions provided to mothers and their significant others across the three services: MBUs, general acute wards and Crisis Resolution/Home Treatment teams with or without perinatal community teams.
Sutter's team shows that mixed mood state in the mother is associated with unipolar past History, higher, socio-professional status and pregnancy onset of episode. They also show that higher risk for mother-child separation was associated with maternal diagnosis (psychotic disorder, personality disorders and/or addiction), young age and placement history in siblings.

Chandra's team found adequate inter-rater and test re-test reliability for their Scale to Rate Maternal behavior that also seems to have predictive validity not only on maternal behaviour but also on the need for supervision or child foster care.
Howard M. describes the support and care provided by MBU's staff that has a positive effect on mother and child outcomes.

Discussion: Implications for services and women care will be discussed, as well as methods to assess the risk and outcomes for the child.

3 Key words : Mother and baby units, efficient maternal care, child protection

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Structured assessment of caregiving capacity during the postpartum period in women with serious mental illness: Reliability and predictive validity of the Dutch Infant Caregiving Assessment Scales (INCAS)

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1. Objectives/Background

Maternal serious mental illness can influence child development through several mechanisms, including parenting. Healthcare professionals are often asked whether, or to what extent, the caregiving skills of mothers with serious mental illness are affected by their symptoms. The Infant Caregiving Assessment Scales (INCAS) have been developed, specifically tailored to a high-risk population and with a unique combination of observational scales for emotional caregiving (e.g. affection and interaction) and instrumental caregiving (e.g. focus and diligence). Observations are carried out in a naturalistic setting during daily caregiving tasks (i.e. diaper changing, bathing, and feeding). The aim of this study was to investigate the reliability and predictive validity of the Dutch version of the INCAS.

2. Methods

In this study 50 clinical mother-infant dyads and 80 healthy mother-infant dyads were included through psychiatric clinics and midwifery practices. Maternal diagnosis was established by clinical interviews (SCID-I/II). Maternal caregiving capacity was blindly coded with the INCAS by well-trained coders. Information on current psychopathology and infant social-emotional development were obtained by maternal report at 7 weeks postpartum and at 6 months follow-up. Also, at 6 months follow-up child development was assessed (Bayley Scales of Infant Development-III).

3. Results

Data on maternal caregiving skills (i.e. reliability of the INCAS) and infant development at 6 months follow-up (i.e. predictive validity) will be presented.

4. Conclusion/Discussion

This study will contribute to the establishment of an evidence-based diagnostic tool to quantify caregiving capacity, which can guide further assessment and treatment in psychiatric populations.

5. Key words

serious mental illness / caregiving capacity assessment

6. References

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Innovative interventions to support fathers' mental health

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1) What research has taught us in regards to fathers' mental health (France)
2) SMS 4 Dads (Australia)
3) The Dad Bridge: fatherhood as motivator in clinical practice with men and their families. (Australia)
4) The Father Friendly Initiative in Quebec : Enhancing health professionals' competencies (Canada)

Background. Although it would appear self-evident that health professionals should pay equal attention to fathers and mothers from pregnancy through early childhood, many professionals focus their attention on the mother–infant unit rather than on family as a whole. Studies have underlined major gaps in terms of perinatal mental health services for fathers, in that services specifically targeting them are scarce. For example, while mothers are routinely screened for perinatal depression, lack of knowledge in regard to fathers' risks for depression, anxiety and PTSD in that period lead to the under-diagnosis of mental health problems in men. There is consensus that more careful attention should be paid to fathers, as fathers are less likely to seek treatment, and when they do, they are often neglected by the health personnel, and find that their concerns and emotional needs are not heard. Objectives. This symposium aims to share research informed innovative interventions to support fathers' mental health in the perinatal period. Methods. Four researchers and clinicians from France, Australia and Canada and Australia present novel interventions to support fathers mental health. Results. Glangeaud (France) will share how research has evolved in regards to focusing more nowadays on fathers' mental health. Informed by these researches, three innovative projects will be presented. Fletcher (Australia) will present SMS4Dads, a Mobile technology project aimed to deliver support and parenting information to new fathers. Roberts (Australia) will present a clinical perspective of harnessing fathers' desire for the best relationship they can have with their child as a motivator to overcome strong difficult emotions. deMontigny and her team (Canada) have conceived an intervention to support health professionals in the development of father friendly practices. Discussion will address the implications, including the challenges, of fatherhood as motivator, in working with dads in all clinical settings.

Keywords : fathers' mental health; father involvement; innovative interventions

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Fathers' Perinatal Mental Health: An Important and Neglected Topic

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Full Oral Presentation

Background: The perinatal period represents a highly significant transition for fathers, and can result in an increased vulnerability to psychological distress (Paulson & Bazemore, 2010). Fathers' perinatal mental health is a critical area of research, due to the potential consequences for the whole family system (Kane & Garber, 2004).

Methods: A three-part project focusing on fathers' mental health in the perinatal period was conducted. First, the longitudinal relationships between fathers' psychological distress and parenting self-efficacy in the postnatal period, parenting behaviour when children were aged 4-5 years, and emotional-behavioural outcomes for children aged 8-9 years were explored. Second, a systematic review was conducted to ascertain the current status and evidence for intervention programs aiming to prevent or treat paternal mental illness in the perinatal period. Finally, a qualitative study explored fathers' perceived support needs, barriers and facilitators to accessing mental health and parenting support in the perinatal period.

Results: The long-term consequences for children of fathers' mood problems highlighted the need for interventions to target fathers' mental health during the perinatal period. Nonetheless, the current evidence regarding the effectiveness of interventions is limited and studies lack methodological rigour. Additionally, future interventions need to be informed by father voices, focusing on their specific support needs.

Conclusion: This information can inform policy, services and intervention efforts targeting the promotion of fathers' mental health and parenting in the perinatal period.

Key words: father, mental health, perinatal

References:

Paulson, J., & Bazemore, S. (2010). Prenatal and postpartum depression in fathers and its association with maternal depression: A meta-analysis. Journal of the American Medical Association, 303(19), 1961–1969.

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Internet-Based Depression Intervention for Adolescent Moms

M. C. Logsdon, J. Rushton, J. Myers, D. Davis, K. Brothers, A. Josephson; University of Louisville; J. Gregg, University of Massachusetts Boston; G. Bennett, Duke University.

Objective/Background:
Approximately 400,000 adolescents give birth in the US annually. Although half experience depressive symptoms, less than 25% comply with referrals for depression evaluation and treatment. The current study tested the effectiveness of an internet-based depression intervention on seeking depression information, intention to seek treatment and actually seeking depression treatment.

Methods:
Data were collected from community organizations across Kentucky. Based upon the Theory of Planned Behavior, the intervention included vignettes, questions and answers, and resources. Before the intervention, immediately after the intervention, and at two-week follow-up the adolescent mothers (n=151) answered questions related to seeking depression information, intention to seek depression treatment, and actual depression treatment. These responses were compared to similar data collected from adolescent mothers (n=138) in the control group.

Results
The adolescents were primarily African American (89.2%); less than high school educated (51.7%); gave birth in last year (97.1%); with a mean age of 18.2 years. The intervention led to significant increases in seeking depression information ($D=4.4$, $p=0.028$), intention to seek depression treatment ($D=5.2$, $p=0.003$) and actual depression treatment ($D=6.7$, $p<0.001$).

Conclusions/Discussion
Untreated postpartum depression creates an undue burden on public health and dramatically impacts mother-child relationships, her functioning at work and school, health-care-seeking behaviors, mothering skills, her own development, and her child's development. An internet-based depression intervention is an inexpensive method to increase rates of depression treatment.

Key words: adolescent, depression, internet

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Implementing WWWT into standard postnatal care: a translational formative evaluation

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Objectives/Background

Implementing What Were We Thinking (WWWT), an evidence-based mental health program, into standard postpartum care requires changes among parents, health care providers, health services and health systems. The objective was to establish the practitioner, organisational and health system changes necessary for WWWT scaling up.

Methods

Following the UK Medical Research Council (MRC) Guidance for evaluating complex interventions, we conducted a translational formative evaluation using mixed methods, including collection and analysis of government documents and the academic literature, semi-structured interviews, an online survey and group discussions with parents, clinicians, health service managers and government policy makers. Interview and focus group data were analysed thematically, and descriptive statistics were computed for survey results.

Results

The findings documented current clinical practice, barriers to change, staff training needs, necessary service modifications to standardise advice to parents and include fathers, staff learning needs to inform the WWWT Training Program, the key priorities and drivers of government health policy, and informed a model of costs and expected health and social outcomes for an economic analysis of WWWT.

Discussion/Conclusions

Implementation of WWWT into routine postnatal care requires adjustments to clinical practice and has economic implications for the health system, including staff training and changed service provision. The results informed the protocols for a cluster RCT and health economic evaluation and will be essential in considerations about scaling up WWWT to make this innovative mental health promotion program available to all Australian new parents and support positive outcomes for families.

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Wynter K, Rowe H, Burns J, Fisher J. Prevention of postnatal mental health problems: a survey of Victorian Maternal and Child Health nurses Australian Journal of Advanced Nursing 2015; 33(1): 29-37.

Key words translation, implementation, prevention

Background

The UK national maternal satisfaction survey indicates that lack of continuity of care and continuity of carer during antenatal period is a common complaint (CQC 2013). Furthermore, access to state supported antenatal parenting classes has been much reduced over recent years (Redshaw & Heikkila 2010).

The aim was to develop 'Club BUMP' for pregnant women. Club Bump is a community-based dance class and social group where women receive health and lifestyle-related advice and support from a midwife and emotional and practical support from each other.

Methods

Focus groups explored women's views and experiences of attending Club Bump. A longitudinal study is ongoing and data on socio-demographics, pregnancy and childbirth outcomes, and psychological health of women is gathered.

Results

Women with a healthy pregnancy and no contraindications to exercise who have attended Club Bump since March 2012 contributed to focus group or longitudinal study results. Findings regarding barriers and facilitators to initial and sustained attendance, in addition to mood, wellbeing and self-efficacy will be presented.

Conclusion/discussion

Club BUMP empowered women on three levels. It helped women to feel more comfortable in bodies that not only *look* but *do*, in minds that reduce uncertainties and anxieties by learning about childbirth, and in a community that sustains and nurtures them in spirit.

Keywords

antenatal, depression, anxiety

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Introduction

This abstract seeks to understand the current philosophy surrounding the mental health of fathers and to suggest ways in which these may be approached, with recommendations for future interventions and guidelines

Background

The importance of fathers' mental health is increasingly recognised as a significant factor in family life. As the construct of traditional society changes, it is becoming more commonplace for the father to be the primary carer of the infant. Should the mother suffer from a mental illness or disorder, then often the father is her main carer too. Studies have shown that if the father also suffers from mental ill health, this can have a significant impact on the relationship with the mother and have a detrimental effect on the development of the infant.

Historically, men are conscious of their role as the provider and protector. The social expectations of men often preclude them from disclosing their feelings; therefore there is a tendency for them to confide their personal concerns to smaller networks of individuals, as they often fear they risk rejection should they admit to them publically. Studies have shown that if the complexities of their relationship with the partner are too much of an encumbrance, fathers often become distressed, frustrated and either withdraw into an activity or sport with which they feel more in control or resort to negative coping skills and misuse drugs and /or alcohol. They are more likely to ask for help when they experience suicide ideation. There are approximately 6,000 suicides annually in the UK.

Method

There is limited data on the incidence of paternal mental illness, but informal interviews and anecdotal evidence has suggested that there are events where the mother is well but the father is suffering from a mental health disorder. Fathers have complained of feeling *'trapped'* partially because of their own vulnerability and emotional expectations. Other phrases used to describe fathers' emotional state have been explained as a *'pressure cooker'* which has developed following relationship and family stressors

Conclusion

Early recognition and prevention would help the father's mental health from deteriorating during this time. The following 5 areas are suggested for further interventions

1. All health interventions during Antenatal/Postnatal Care to involve the father/partner.
2. The mental health history of the father should be taken into consideration
3. The man's concerns and fears about becoming a father should be addressed
4. Fathers should be allowed to discuss their birth experience, being mindful of PTSD, if exposed to a traumatic birth
5. A NICE Guideline Pathway for fathers' mental health and well-being

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https://www.nct.org.uk/press-release/dads-distress-many-new-fathers-are-worried-about-their-mental-health

Mark Williams: Marce Society Conference (due to ill health couldn't speak)
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https://www.routledge.com/products/9781138774926

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Supporting fathers of Partners with Perinatal Mental Health.
http://www.healthcareconferencesuk.co.uk/news/supporting-men-whose-wives-or-partners-are-suffering-from-post-natal-depression

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Factors Associated with Poor Father-to-infant Attachment at 6 Months Postpartum: A Community Study in Victoria, Australia

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Objective/Background

Father-to-infant attachment, the emotional tie between a father and his infant, is essential for healthy emotional development of children. Currently, there is little consistent evidence on potentially modifiable risk factors for poor quality father-to-infant attachment. The objective of this study was to identify factors associated with father-to-infant attachment at 6 months postpartum.

Methods

English-speaking men were recruited in diverse community settings in Victoria, Australia. Participants (n=270) completed computer-assisted telephone interviews at approximately 4 weeks and 6 months after the birth of the couple's first infant. Standardised measures were used to assess men's mental health, quality of intimate partner relationship, infant crying and fussing, and father-to-infant attachment. Structural equation modelling was used to identify factors associated with poor quality father-to-infant attachment.

Results

Adjusting for other relevant factors, poorer quality father-to-infant attachment was significantly associated with personality traits including oversensitivity (p=0.03), more symptoms of depression and anxiety (p=0.02), poorer quality partner relationship (p=0.01) and more frequent partner criticism of infant care (p=0.01) (Wynter et al., 2016).

Conclusion/Discussion

Specific personality traits which may reflect fathers' attachment style and which were significantly associated with poor father-to-infant attachment in this study, are not easily modifiable. However, partner criticism is potentially modifiable, and is not only associated with symptoms of depression and anxiety in fathers (Wynter et al., 2013), but also with poor father-to-infant attachment. Routine primary care should include both parents; promoting affirmative partner relationships may be a promising means for improving father-to-infant attachment.

References

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Key Words

Fathers, Attachment, Quality of Intimate Partner Relationship

Symposium title: **Prevention of postpartum common mental disorders among primiparous women: promising evidence that a primary care psychoeducational program for couples and babies is feasible, salient, and effective**

A NEW WAY OF THINKING ABOUT PREVENTION OF POSTNATAL COMMON MENTAL DISORDERS AMONG PRIMIPAROUS WOMEN: EVIDENCE FROM A cRCT OF A GENDER-INFORMED PSYCHOEDUCATIONAL PROGRAM FOR COUPLES

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Objectives
Interventions to prevent postpartum common mental disorders (PCMD) among unselected populations of women have had limited success. What Were We Thinking (WWWT) is a gender-informed, psycho-educational program for couples and babies. It is manualised, and comprises primary care from a trained nurse, print materials and a face-to-face seminar. We aimed to establish in a cluster RCT whether WWWT, can prevent PCMD among primiparous women

Methods
Data were collected in blinded computer-assisted telephone interviews 6 and 26 weeks postpartum. Maternal and child health centres were allocated randomly to provide usual care (24), or usual care plus WWWT (24). Participants were primiparous women receiving care at trial centres

Results
Among the 204 participants in the intervention and 196 in the control arms, >90% provided complete data. The Adjusted Odds Ratio (AOR) of PCMD in the intervention compared to the control group was 0.78 (95%CI 0.38;1.63 ns), but mild-to-moderate anxiety symptoms (AOR 0.58, 95%CI 0.35;0.97) and poor self-rated health (AOR 0.46, 95%CI 0.22;0.97) were significantly lower. PCMD prevalence was significantly lower (AOR 0.36, 95%CI 0.14;0.95) among those who received the full intervention rather than usual care. No harms were detected.

Conclusions
WWWT is readily integrated into primary care, includes fathers and addresses modifiable risks directly and is a promising PCMD prevention program and a component of stepped mental health care.

Keywords

Prevention, psychoeducation, cluster randomised controlled trial

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Fisher J, Rowe H, Wynter K, Tran T, Lorgelly P, Amir L, Proimos J, Ranasinha S, Hiscock H, Bayer J, Cann W. A gender-informed, psychoeducational program for couples to prevent postnatal common mental disorders among primiparous women: cluster randomised controlled trial. *BMJ Open*, doi:10:1136/bmjopen-2015-009396

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Cognitive Behavioural-Art program: a feasibility and acceptability study in an Australian residential early parenting centre.

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Objectives/Background

Art Therapy is an effective non-verbal therapy[1] with potential application for perinatal mental health problems. There is a high prevalence of clinically-significant depression and anxiety among women admitted to Australian residential early parenting services. The CB-Art program, developed in Israel for the perinatal period, combines AT with cognitive behavioural therapy and aims to assist women to recognise and name their thoughts and feelings, which is a precursor to change. The aim of this study was to assess the feasibility, acceptability and safety of CB-Art in a residential early parenting unit.

Methods

A single group pre-and post-test design was used. All women admitted to the unit were invited to participate. Participants took part, in groups of three, in two one-hour, CB-Art sessions facilitated by a Clinical Psychologist during admission. Baseline questionnaires collected demographic information and emotional competence using a standardised measure[2]; EPDS scores were extracted from the medical record. A brief telephone interview one week after discharge assessed outcomes and program evaluation. Quantitative data were summarised and qualitative data were analysed thematically.

Results

Nine women participated and provided follow-up data. Symptoms of postnatal depression improved but there was no change in emotional competence scores. Qualitative data suggested improvements in reflective capacity and the program was highly evaluated.

Discussion and conclusion

The findings need to be confirmed in a larger controlled study but this preliminary evidence suggests that CB-Art is an acceptable, feasible and safe addition to the residential early parenting program.

Key words

Art therapy; emotional competence; cognitive behaviour therapy

References

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"California Maternal Mental Health Commission- Findings and Recommendations"

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Objective:

The California Commission on Maternal Mental Health Care was established by a state legislative resolution to study, review and identify (1)current barriers to screening and diagnosis of postpartum depression, (2)current treatment options for both those who are privately insured and those who receive care through the public health system, and (3)evidence based and emerging treatment options that are scalable in public and private health settings.

The Commission consists of twenty-one members, ranging from OB/GYNs, Pediatricians, Public Health Administrators, Insurance Plans, Hospital Administrators and Community Health providers.

We are proposing a workshop where at the conclusion of this presentation, participants will be able to:

1. Think creatively on what MMH measures are important in MCH programs and what they might look like.
2. Know the list of systemic change and policy recommendations made by the Commission.
3. Understand the process of convening the Commission, conducting the research and arriving at consensus.
4. Consider being part of the movement created by the collaborative efforts around Maternal Mental Health by starting a Commission in their state or community.

Methods:

The method of the Commission process included:

- Series of ten convenings with Commission members, in-person and webinars.
- Literature review of maternal mental health peer reviewed and journal articles.
- Conducted statewide electronic survey of community organizations,state agencies,Federally qualified health centers,nonprofits and First 5 offices to assess the work and training being done on MMH in California.

Results:

The result of this work will be documented in the form of a White Paper that will be available in May/June 2016. It will include findings and recommendations with the focus on prevention,detection,diagnosis and treatment of MMH. It will also provide various perspectives on the issue that will include public policy,practitioner and providers of care,workforce,hospital and health systems,primary care physicians,private insurance and integrated financing.

Key Words:

Maternal Mental Health
Postpartum Depression
Public Policy

Conclusions:

This Commission is on the cutting edge of statewide collaborative work and is a model for other states to emulate. This presentation would offer your attendees an opportunity to learn how they might conduct work across sectors in their own states to better address maternal mental health.

References:

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Online recruitment for postnatal mental health research: feasibility, cost and sample representation

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Objectives/Background: Difficulty recruiting participants in mental health research has led researchers to investigate the Internet as a recruitment tool [1]. New parents appear highly suited to online recruitment given they are often socially isolated at home, restricted in their mobility and time-poor [2]. The current study is one of the first to examine the feasibility and cost of recruiting a sample of postpartum women online and to investigate the representativeness of this sample.

Methods: Participants were recruited in early 2015 to participate in the online Living with a Young Baby Survey (LYBS). Recruitment took place online via advertisements on a popular infant development website (www.babycentre.com.au) and 'facebook'. We compared the socio-demographic characteristics and levels of psychological distress between our online LYBS sample (n=1083) and postnatal mothers from waves 11 and 13 of the nationally representative Household Income and Labour Dynamics in Australia (HILDA) Survey (n=583).

Results: The online recruitment strategy was highly time-efficient and low-cost. Over a period of thirteen days, 1083 eligible participants were recruited for a total direct cost of AUD$448.68. Postnatal women recruited online in the LYBS were comparable to those from HILDA in their location and remoteness of residence. However, the online sample over-represented those who were younger, were in a de facto relationship, had higher levels of education, spoke only English, who were first-time mothers, and had poorer mental health.

Conclusion: Online recruitment of a population of postnatal women appears to be highly efficient, feasible and low-cost. However, researchers need to consider carefully if a representative sample is needed to answer their specific research questions – if so, strategies to maximise sample representation must be considered.

3 Key words: Online recruitment, postpartum, mental health

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Abstract for International Marcé Society Conference

Winnicott was talking about the emotional development of the child when he famously said that the precursor of the mirror is the mother's face. We wish to discuss in detail a case study in which a first-time mother with an undiagnosed autism spectrum disorder (ASD) was unable to read the moment-to-moment interactions with her baby, resulting in attachment issues on both sides and an anxious obsessionality on the mother's part which was initially diagnosed as post-natal depression.

We will also conduct a brief overview of ASD in women, how and why it is underdiagnosed, and why this is of particular importance in the perinatal period.

The impact of postpartum PTSD on child development: a population-based, two-year follow-up study

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Background. The present study aimed to prospectively examine the impact of maternal postpartum PTSD on four important areas of child development, i.e. gross motor, fine motor, communication, and social-emotional development.

Methods. This study is part of the large, population based Akershus Birth Cohort. Data from the hospital's birth record as well as questionnaire data from 8 weeks and 2 years postpartum were used (n= 1,472). The domains of child development that were significantly correlated with PTSD symptoms were entered into regression analyses. Interaction analyses were run to test whether the influence of postpartum PTSD on child development was moderated by child sex or infant temperament.

Results. Postpartum PTSD had a predictive relationship with poor child social-emotional development two years later. This relationship remained significant even when adjusting for confounders such as maternal depression and anxiety. Both, child sex and infant temperament, moderated the association between maternal PTSD and child social-emotional development, i.e. with increasing maternal PTSD symptom load, boys and children with a difficult temperament showed to have comparatively higher levels of social-emotional problems.

Conclusion. We found a prospective impact of postpartum PTSD on children's social-emotional development at two years of age. Our findings suggest that both boys and children with an early difficult temperament may be particularly susceptible to the adverse impact of postpartum PTSD.

Key words: Postpartum PTSD, child development, Akershus Birth Cohort

References:

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McKenzie-McHarg, K., Ayers, S., Ford, E., Horsch, A., Jomeen, J., Sawyer, A., Stramrood, C., Thomson, G. & Slade, P. (2015). Post-traumatic stress disorder following childbirth: an update of current issues and recommendations for future research. Journal of Reproductive and Infant Psychology 33, 219-237

Lessons from maternal suicide: 17 years of the UK Confidential Enquiries into Maternal Deaths

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Objectives/Background
The UK Confidential Enquiries into Maternal Deaths have been in existence for over 60 years. For the last 17 years they have reported in depth on each pregnant or postnatal woman in the UK whose death was related to psychiatric causes. This presentation will review the evolving pattern of lessons learned and the impact of the Enquiries on service development and care standards in the UK.
Methods
Detailed case review of all women dying in pregnancy or within one year of childbirth, with multidisciplinary evaluation of emergent themes.
Results
Core themes emerge on deficits in knowledge, assessment, recognition of high-risk symptom patterns, co-ordination and level of care provided. There has been an evolving pattern in adverse outcomes from those with previous bipolar disorder, closely linked with risk of early severe postpartum illnesses, to those with recurrent significant depressive disorders, in recent Enquiries.
Conclusions/Discussion
The Confidential Enquiries have been a major driver for specialist service development in the UK. However, significant deficits remain in the co-ordination and delivery of care, and new lessons learned suggest additional targets for improvement in mental health, maternity and primary care settings.
Key words
Suicide; mental disorder; maternal mental health
References
- Cantwell R, Knight M, Oates M et al. Lessons on maternal mental health. In Knight M et al (Eds.) MBRRACE. Saving Lives, Improving Mothers' Care - Surveillance of maternal deaths in the UK 2011-13 and lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2009-13. Oxford: NPEU, University of Oxford 2015: p22-41.
- Oates MR, Cantwell R. 'Deaths from Psychiatric Causes' in Lewis G (Ed.) CMACE. Saving Mothers' Lives: reviewing maternal deaths to make motherhood safer: 2006–08. The Eighth Report on Confidential Enquiries into Maternal Deaths in the United Kingdom. BJOG 2011;118 (Suppl. 1):1–203.

Mindfulness and Self-Compassion:
Psychoeducation Internventions for Antinatal and Perinatal Health and Well-Being

1:Objective and expected outcomes of the workshop

For health professionals to explore, experience and understand the research and practice of Mindfulness and Self-Compassion as psychoeducational interventions that support:

- Antinatal and Perinatal Health and Well-Being
- Child and Maternal attachment

Workshop outline:

- What is mindfulness?
- What is self compassion?
- What is the neuroscience of mindfulness and self compassion?
- How can these practices benefit mothers and mothers-to-be?
- How can mothers and mothers-to-be access these interventions?

The session will be relaxed, interactive and experiential.

2: Key words
Mindfulness
Self-Compassion
Psychological Well-Being

3: References – more available

Creswell, J. David et al. (2016), Alterations in Resting State Functional Connectivity Link Mindfulness Meditation With Reduced Interleukin-6: A Randomized Controlled Trial. *Biological Psychiatry* http://dx.doi.org/10.1016/j.biopsych.2016.01.008

Dimidjian, S. et al, (2016). Staying Well During Pregnancy and the Postpartum: A Pilot Randomized Trial of Mindfulness-Based Cognitive Therapy for the Prevention of Depressive Relapse/Recurrence. *Journal of Consulting and Clinical Psychology*, Vol 84(2), 134-145

Germer, C. K. and Neff, K. D. (2013), Self-Compassion in Clinical Practice. J. Clin. Psychol., 69: 856–867. doi: 10.1002/jclp.22021

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Background: Perinatal anxiety and depression affect around 20% of perinatal women (1). In the UK, general practitioners (GPs) manage mild-moderate perinatal mental health. The aim of this review was to synthesise the available information from qualitative studies on GPs' attitudes, decision making and routine clinical practice for diagnosis and treatment of perinatal mental illness (PMI).

Method: A systematic search was conducted on Embase, Medline, PsycInfo, Pubmed, Scopus and Web of Science. Grey literature was searched using google, google scholar and British Library EThOS. Papers and reports were eligible for inclusion if they reported qualitatively on GP' clinical practice for the diagnosis or treatment of perinatal anxiety or depression. The synthesis was constructed using meta-ethnography.

Results: Five key themes were established from five eligible papers: diagnosing depression and anxiety; clinical judgement versus guidelines; care and management; use of medication; and the role of other professionals. GPs considered perinatal depression as a psychosocial phenomenon, being reluctance to label disorders and medicalise distress. They relied on clinical judgement rather than evidence based guidelines. They reported helping patients make informed choices about treatment, and attempting to plug the gap in availability of "talking" therapies by inviting women back regularly. GPs felt isolated dealing with PMI.

Conclusions: GPs have different perspectives from affected women about PMI (2). This may partially explain reasons for under-detection, under-treatment and dissatisfaction with care. GPs may not have timely access to appropriate psychological therapies. Training should focus on these issues and be evaluated to see if this alters outcomes for women.

Keywords: postnatal depression, general practice, metasynthesis.

1. JCC-MH: Guidance for commissioners of perinatal mental health services. RCPsych 2012.
2. Chew-Graham CA, Sharp D et al. Disclosure of symptoms of postnatal depression, the perspectives of health professionals and women: a qualitative study. *BMC Fam. Pract.* 2009;10:9.

Title:

MIND2CARE, AN INNOVATIVE SCREEN-AND-ADVICE MODEL FOR PSYCHOPATHOLOGY, PSYCHOSOCIAL PROBLEMS AND SUBSTANCE USE, DURING PREGNANCY

Authors:

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Affiliations:

1. Gelre Teaching Hospitals, Apeldoorn, the Netherlands
2. Erasmus University Medical Center, Department of Psychiatry, Rotterdam, the Netherlands

Objectives/Background

In routine obstetric care non-medical and non-obstetrical risk factors, such as depression, intimate partner abuse and smoking, are usually not systematically addressed, but have shown to contribute significantly to adverse mother and/or infant outcomes.

Methods

The Mind2Care (M2C) is an innovative Dutch screen-and-advice tool developed and validated for routine use in antenatal obstetric care. The instrument aims at detecting pregnant women on the broad specter of psychiatric and psychosocial risk factors including substance use (PPS). Ideally before the first prenatal visit pregnant women themselves complete an adaptive web-based questionnaire (through pc or tablet). Directly after completion, the instrument provides tailored advice according to locally existing mental and psychosocial care. This advice is discussed with the obstetric care giver, who will indicate and refer the woman for mental or psychosocial care if necessary.

Results

In this presentation we will show data on clinical feasibility and scientific outcomes of the routine use of the M2C in obstetric care. Extensive research with the M2C in obstetric care showed high feasibility (care giver) and acceptability (pregnant woman) in daily obstetric practice.

Conclusion

The Mind2Care screen-and advice tool reveals more information than in usual patient encounters, increasing the detection of vulnerable pregnant women and enhances scientific research on effectiveness of treatment for PPS.

Keywords

1. Mind2Care screen-and-advice tool
2. Psychopathology
3. Obstetric care

References

C. Quispel, A.J. Schneider, G.J. Bonsel, M.P. Lambregtse-van den Berg. An innovative screen and- advice model for psychopathology and psychosocial problems among urban pregnant women: an exploratory study. Journal of Psychosomatic Obstetrics & Gynecology, 2012; 33(1): 7–14

C. Quispel, M.J. van Veen, C. Zuijderhoudt, E.A.P. Steegers, W.J.G. Hoogendijk, E. Birnie, G.J. Bonsel, M.P. Lambregtse-van den Berg. Patient versus professional based psychosocial risk factor screening for adverse pregnancy outcomes. Maternal and Child Health Journal, 2014 Nov;18(9):2089-97.

Word count (including references): 296

International Marce Society for Perinatal Mental Health Biennial Scientific Conference

Title: Emotional well-being of a sample of Saudi Arabian women in the first ten weeks postpartum

Abstract

Background

Emotional well-being during the postpartum period has received extensive research and clinical attention in developed countries. However, maternal mental health has not been researched in Kingdom of Saudi Arabia (KSA), and there are no existing statistics on prevalence or significant risk factors for Postnatal Depression (PND).

Objective

The aim of present study is to assess the magnitude of postpartum depression among a sample of Saudi Arabian mothers in the Capital City Riyadh KSA, by estimating its prevalence and associated risk factors.

Methods

A total of 553 eligible mothers from four to ten weeks postpartum (2015) who attended two maternity hospitals in Riyadh, KSA were surveyed for maternal health problems both physical and emotional using an adapted validated tool. The survey incorporates assessment of the frequency and severity of common physical and psychological symptoms after childbirth. Emotional wellbeing was assessed using the Edinburgh Postnatal Depression Scale (EPDS) Arabic version (Cox, Holden, & Sagovsky, 1987). The EDPS was divided into two dichotomous categories.

Results

Overall, 185 (33.5%) mothers were found to have EPDS greater than 12 over this 10 week period compared to mothers who were not depresses (66.5%, n= 368). The factors predictive of PND were: low state of general health after hospital discharge, incidence of urinary incontinence and history of depression during pregnancy.

Discussion/ Conclusion

A high proportion of PND was identified in Saudi Arabian mothers. Evaluation of mothers' emotional health during the postpartum period is crucial to identify those at risk. A combination of psychological and obstetric factors were found to be associated with PND.

Key words

Postpartum Depression, risk factors, Saudi Arabia.

References

Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. *The British Journal of Psychiatry, 150*(6), 782-786.

Preschool children born to women with intellectual disability have a higher risk to mortality

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Objective/Background
To study the mortality in preschool children born to mothers with ID compared to preschool children born to mothers without ID in Sweden

Methods
Population-based data were extracted from the National Patient Register, the Swedish Medical Birth Register, the Swedish National Quality-neonatal Register, the National Cause of Death Register and the Multi-Generation Register

Results
The mortality rate among preschool children born to mothers with ID was higher compared to children born to mothers without ID (0.7% vs. 0.4%). Further, children who had a subsequent preschool death more often had additional diagnoses such as an ID diagnosis, suffered from psychiatric disorder, admitted to hospital for unintentional injuries and more frequently as fall and poison. Moreover, they were more exposed for accidental injuries such as burn traffic, drowning, and other threats to breathing, violence and child abuse

Conclusion/Discussion
Preschool children born to women with ID are a risk group to die and needs extra care and support. Mothers with ID need tailored and on-going active support, both with regard to their own cognitive limitations and to prevent external causes of preschool mortality

Key words
Intellectual disability, preschool children, preschool mortality

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2. Cause of Death Register, Swedish National Board of Health and Welfare. http://www.socialstyrelsen.se/register/dodsorsaksregistret. Retrieved 2015-06-29.

Pre and Postnatal Depressive Symptoms and Child Development

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Symposium Abstract

Previous research has demonstrated the importance of the prenatal period for the development and maintenance of physical and mental health across life span. For women pregnancy is usually considered as a positive and personally meaningful life event. But, besides tremendous biological changes pregnancy also requires adaptation to a variety of psychological and social factors, which can be experienced as stressful and even mood changing. In the proposed symposium we aim to address consequences of depressive symptoms during pregnancy for the mothers and their children and will show whether antenatal psychotherapeutic interventions may increase maternal psychological wellbeing.

Julia Hunold (Switzerland) will present data of a prospective longitudinal study referring to the impact of 1st trimester work stress on depressive symptoms during the remaining pregnancy. The findings show that work stress is associated with negative mood and 1st trimester work stress seems to be predictive for pregnancy related stress during 3rd trimester.

Katri Räikkönen (Finland) analyzed data from a large prospective pregnancy cohort study showing that maternal depressive symptoms during pregnancy were associated with higher internalizing, externalizing and total problems in their 3.5-year-old children.

Rita Castro (UK & Switzerland) examined longitudinally maternal coping styles and mood from pregnancy until six months postpartum, and investigated their relation to both breastfeeding and infant temperament. Maternal coping and mood during pregnancy and postpartum were independently associated with infant temperament at 6 months.

Simone Setterberg (Sweden) and her colleagues investigated the effects of antenatal parenting intervention in comparison to a control group receiving conventional parental support. The Mindfulness Based Childbirth and Parenting program reduced not only maternal but also fathers' depressive mood.

What can be seen from the studies to be presented is the importance of mood assessment in pregnant women prenatally. Depressive symptoms and subjectively experienced stress during pregnancy are associated with child development.

Maternal depressive symptoms related to prenatal work stress and its consequences regarding birth outcome

Julia Hunold [a] (j.hunold@psychologie.uzh.ch)
Biography
PhD student in Clinical Psychology at the University of Zürich.
Research interests: Psychobiological adaptation to naturally occurring stress during pregnancy.

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Background: Work stress is assumed to contribute to elevated stress levels during pregnancy[1]. The risk for premature delivery and lower birth weight seems to be increased by this factor[2]. Little research can be found about maternal depressive mood related to work stress during pregnancy and child development.

Methods: Within a longitudinal study 100 pregnant women (M=31.5±4.1 years) were recruited. Prenatal work stress and depressive values were analysed.

Results: Data analyses have shown an association between work stress in the first trimester and depressive mood (β=.239, p=.017). Further, work stress in the first trimester has been shown to be associated with pregnancy related stress in the third trimester (β=.278, p=.02). Data regarding to birth outcome will be presented at the conference.

Discussion: The cross sectional analyses are critically to be considered. However, work stress seems to influence depressive and stress values of pregnant women, which may lead to aversive birth outcomes.

Keywords: prenatal work stress, maternal depression, birth outcome

References:
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[2] Armstrong, B. G., Nolin, A. D., & McDonald, A. D. (1989). Work in pregnancy and birth weight for gestational age. *British journal of industrial medicine*, *46*(3), 196-199.

Financial support: Swiss National Science Foundation

Maternal depressive symptoms during pregnancy and after pregnancy and psychiatric problems in their children

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Academy Professor of Psychology

Objective
To study whether maternal depressive symptoms during pregnancy are associated with child psychiatric problems, whether these associations are trimester- or gestational-week-specific, and/or independent of pregnancy disorders, and whether maternal depressive symptoms after pregnancy account for, mediate, or add to the prenatal effects.

Methods
Prediction and Prevention of Preeclampsia (PREDO) is a prospective cohort study including women and their singleton children born in Finland 2006-2010, and followed up to 3.5 years (n=2296). Pregnant women were recruited when they attended their first ultrasound screening at gestational weeks+days 12+0/13+6 in antenatal clinics of ten study hospitals. They filled in the Center for Epidemiological Studies Depression-scale biweekly between gestational weeks+days 12+0/13+6 to 38+0-39+6 or delivery; pre-pregnancy obesity, gestational hypertension-spectrum disorders and gestational diabetes were fused from Medical Birth Register and/or verified by an independent jury; Beck Depression Inventory-II and Child Behavior Checklist 1½-5 were completed by the women in the follow-up.

Results
In a prospective pregnancy cohort of 2296 women, maternal depressive symptoms during pregnancy were associated with higher internalizing, externalizing and total problems in their 3.5-year-old children. Associations were trimester- and gestational-week-non-specific, independent of pregnancy disorders, and independent of, although partially mediated by maternal post-partum depressive symptoms. Psychiatric problems were greatest in children of mothers with clinically significant depressive symptoms across pregnancy trimesters and after pregnancy. Additional analyses demonstrated significantly associations with all types of psychiatric problems in the domains captured by the CBCL.

Conclusion
Maternal depressive symptoms during pregnancy predict higher risk for psychiatric problems in young children. Preventive interventions reducing maternal symptomatology as early in pregnancy as possible may benefit the mental health of the offspring.

Key words
Depression, programming, offspring

References
Räikkönen, K, Pesonen, A-K, O'Reilly, JR, Tuovinen, S, Lahti, M, Kajantie, E, Villa, P, Laivuori, H, Hamalainen, E, Seckl, JR & Reynolds, RM. Maternal depressive symptoms during pregnancy, placental expression of genes regulating glucocorticoid and serotonin function and infant regulatory behaviors. *Psychological Medicine* 2015, 45, 3217-3226.
Reynolds RM, Labad J, Buss C, Gahammagami P, Räikkönen K. Transmitting biological effects of stress in utero: Implications for mother and offspring. *Psychoneuroendocrinology* 2013, 38(9): 1843-1849.

Financial support: Academy of Finland

Effects of maternal perinatal mood variation and coping stability on the infants

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Rita Castro is a Postdoc at the University of Zurich. Rita's general research area is prenatal mental disorders and infant development. Her interests include prenatal depression and breastfeeding and, prenatal and lactational programming of the infant development.

We examined changes in maternal coping styles and mood from pregnancy until six months postpartum, and investigated their relation to both breastfeeding and infant temperament. N= 162 pregnant women and their infants participated in this study. Maternal mood and coping were assessed at 20, 28 and 36 gestational weeks, and at one and six months postpartum; infant feeding data was obtained at one and six months postpartum and infant temperament at six months.

Different dimensions of coping presented small significant changes over time. Increased use of problem-focused coping at 20 weeks gestation (B= .051, p= .007) was associated with higher infant effortful control, whilst decreased use of problem-focused coping at 20 and 28 weeks gestation (B= -.068, p= .007; B= -.086, p= .002) was related to higher infant negative affect. Maternal mood showed a significant changing trajectory. Low maternal mood at 20 weeks gestation was associated with higher infant extraversion temperament (B= .047, p= .004).

Maternal coping and mood during pregnancy and postpartum were independently associated with infant temperament. In this mentally healthy sample neither was associated with breastfeeding.

Mood, Coping, Infant Temperament

Guardino, C., & Dunkel-Schetter, C. (2014). Coping during pregnancy: a systematic review and recommendations. Health psychology review, 70-94;
Rode, J., & Kiel, E. (2015). The mediated effects of maternal depression and infant temperament on maternal role. AWMH, 1-8.

Antenatal Depression and Stress: A Randomized Controlled Study

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Simone Setterberg, MA, MS, Msc, PhD research in perinatal mental health at Karolinska Institutet, fellow at Columbia University College for Physicians and Surgeons and clinical experience in Shanghai, New York, Switzerland, and Sweden.

Objective: Perinatal mental health is considered as a major public health concern [1]. Depressive symptoms are prevalent in 20 % of pregnant women [2], with 15 % showing depression during the first year postpartum. The Swedish Public Health promotes early parental intervention to improve mental health [3]. Mindfulness Based Childbirth and Parenting (MBCP) may be an effective prenatal parenting intervention, decreasing depression and stress.

Methods: RCT study, n=91, on MBCP antenatal parenting intervention and control group receiving conventional parental support. Baseline and outcome measures post intervention included the Edinburgh Postnatal Depression Scale (EPDS) and the Perceived Stress Scale (PSS-14).

Results: The mean change of the EPDS and PSS-14 in the intervention group of pregnant women and their partners is of clinical relevance. Post intervention pregnant women's EPDS scores improved (p=0,000) and PSS-14 scores (p=0,000). The partners in the intervention group also showed significant enhancement in EPDS (p=0,001) and PSS-14 (p=0,026). The control group of pregnant women presented lower perceived stress (p=0,001).

Conclusions: The outcomes indicate the intervention being more effective than standard antenatal care, to reduce stress and depressive symptoms among an at-risk Swedish population of pregnant women and their partners.

Key words: Perinatal Depression, Early Intervention, RCT

References

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2. Marcus S., et al (2003). Depressive symptoms among pregnant women screened in obstetrics settings. J Womens Health 12(4):373–380.
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Financial Support: Vetenskaps Rådet, Sweden

SMS4dads

1. Objectives/Background
   Ten percent of new fathers are estimated to be experiencing depression (Paulson & Bazemore, 2010) however few will seek support. Mobile technology could potentially deliver support and parenting information to new fathers. This feasibility study aimed to test the design, delivery and acceptability of SMS4dads, an intervention consisting of text messages and an interactive 'Mood Tracker', delivered to fathers over the perinatal period.
2. Methods
   Fathers were recruited through clinics and social media. Kessler 6 score (Kessler et al., 2003) was collected at enrolment. Brief text messages addressing father-infant and father-partner relationships and fathers' self care were sent from 6 months antenatally to 3 months postnatally. Messages averaged 14 per month including three-weekly 'mood tracker' with 5 mood options. Indicating the lowest option triggered telephone support. Acceptability, usefulness and satisfaction were measured through an online survey on exit.
3. Results
   Results for the first 4 months are described here. The complete 8 month study results will be presented in September. Social media, antenatal educators and home visiting nurses were all effective recruiters. Over 300 fathers were recruited in four months and only 5% withdrew. Approximately half reported K6 scores consistent with moderate to high levels of distress however no fathers clicked the lowest mood option. External web page links with further information were accessed by more than 50% of fathers.
4. Conclusion/Discussion
   SMS messaging can reach men as they transition to fathers. Messages targeting infant care, partner support and self-care are acceptable to new fathers and links to further information are utilised. It is unclear if Mood Tracker messages led to increased awareness of mental health or to seeking support.

   Key words; fathers, SMS
5. References
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Borderline personality disorder: A cross mother. A cross infant. Across cultures. Across the issues?

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Borderline personality disorder (BPD) is a common (2.7% incidence) and serious mental disorder, with symptoms which often worsen at times of stress including the perinatal period. Women with BPD have poorer engagement with ante-natal care, higher rates of adverse obstetric outcomes and higher rates of protective concerns for their unborn infants. They report higher levels of parenting stress, feel less satisfied with their parenting and have been shown to parent more intrusively and less sensitively. Over the past 15 years there has been significant advances in identification and management of people with BPD[1], with several authors focusing on the frequency and identification in perinatal populations[2,3].

Objectives:

1) To present summaries of recent work of BPD in the perinatal period, including consequences on the women, their unborn infants and children, , and across different cultures.
2) to describe some of the difficulties for the woman, the family and the health professional team in working with women with a BPD diagnosis, by presenting 3 cases for small group discussion..

Outcomes:

1) Participants will increase their knowledge of this condition and how different worksites and cultures both formulate and then manage working with women with BPD.

2) Participants will have a greater understanding of the complexities, difficulties and rewards i of working with women with this condition.

Key words: Borderline personality disorder, pregnancy, culture

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4. Borderline Personality Disorder and the Eating Disorders in the Perinatal period. Blankley G, Power J, Chanen A.in Psychopharmacology and Pregnancy:Treatment Efficacies, Risks and Guidelines. Eds Galbally M, Snellen M, Lewis A. Springer,2014.

Mothers, babies, and scrapbooking: A creative group intervention for overcoming perinatal difficulties and enhancing the mother-baby bond

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Background and Objectives
Despite frequently experiencing emotional distress in the perinatal period, many women do not access the support they require. The Happy Scrappers Group is an innovative 7-week program targeting women in the first year postpartum. The program incorporates parent-child activities and therapeutic scrapbooking to address difficult perinatal experiences, and enhance the mother-baby bond. This study aimed to explore the experiences of program participants and identify program outcomes.

Method
A mixed method approach was utilised. Questionnaires assessing emotional distress (depression, anxiety and stress levels) and maternal subjective feelings of attachment were completed by thirteen women at the beginning, mid-point and end of the program. Twelve women were interviewed at the conclusion of the program. Qualitative data were analysed using Interpretative Phenomenological Analysis (IPA).

Results
Mothers' levels of stress and anxiety were significantly lower at the conclusion of the program compared to initial levels. Maternal feelings of attachment increased significantly at each test administration. The IPA indicated that mothers' experience of the program was overwhelmingly positive and four key themes emerged: connecting with other mothers and discussing difficult experiences; scrapbooking as a process for healing; strengthening the mother-baby bond; and increased confidence in parenting.

Conclusion
Deceptively simple in design, the Happy Scrappers Group appears to be an accessible and valuable intervention for a highly vulnerable population. Findings support the importance of providing alternative therapeutic interventions to address women's emotional health in the postnatal period.

Key Words
- Therapeutic Scrapbooking
- Phototherapy
- Perinatal distress

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Gene expression in postpartum depression within pharmacologically –induced (GnRHa) depressive symptoms and SERT variability

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Background - Sex-steroid hormone fluctuations may increase risk for depressive symptoms in postpartum depression (PPD). Serum hormone levels are not associated with risk for PPD; however, in women with a predisposing risk to PPD, administration of estradiol (E2), either experimentally or via natural pregnancy, is required to elicit depressive symptoms following hormone withdrawal.
Dr. Frokjaer (Frokjaer, V.G., et al, 2015) demonstrated a significant positive association between changes in neocortical serotonin transporter (SERT) binding and changes in depression scores from baseline following a pharmalogically induced biphasic ovarian hormone response by Gonadotrophin-releasing hormone agonists (GnRHa) relative to placebo. We identified a specific set of genes in late pregnancy predicting later PPD development using genome-wide gene expression profiling in prospectively derived antenatal blood from the highly sex-steroid stimulated state in third trimester of pregnancy (Mehta, D., et al, 2014), suggesting an enhanced sensitivity to estrogen signaling predisposes to PPD. Guintivano et al (Guintivano, J., et al, 2014) demonstrated an increased sensitivity of DNA methylation changes in response to estrogen that predisposes to PPD.
Methods - Longitudinal genome-wide data from 63 women (31 GnRHa treated and 30 placebo treated) was evaluated. Gene expression was measured using the Illumina Human HT12v4 arrays and DNA methylation was assessed using the Illumina 450k arrays using standard experimental protocols and custom statistical pipelines as described previously (Mehta et al, PNAS, 2013).

Results and Conclusions - PPD gene expression biomarker set identified the subset of women demonstrating sensitivity to GnRHa intervention and these markers were associated with brain SERT responses to GnRHa. Epigenetic signatures identified subsets of women demonstrating sensitivity to GnRHa intervention in terms of the emergence of depressive symptoms or brain SERT responses to GnRHa. Further functional analysis is currently underway to investigate the underlying biological pathways.
Keywords – Postpartum depression, gene expression, pharmacological treatment

Treatment for antenatal anxiety and depression with Beating the Blues before Birth BBB© positively impacts infant postnatal development at 9 months, a pilot RCT.

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Objectives/Background Substantial evidence links antenatal anxiety, depression, and stress with negative effects on fetal development, resulting in enduring negative impacts on child development. Despite this, there is a paucity of research on intervention programs to address this, and none that report on the potential of treatment for improving child outcomes (Glover 2014). We aimed to evaluate the efficacy of antenatal treatment for anxiety and depression in women with a diagnosed depressive disorder.
Methods We developed BBB intervention for antenatal depression and anxiety and evaluated its feasibility. This was followed by a pilot randomised controlled trial (RCT) which collected data on the efficacy of the intervention and follow-up data on infant development.
Results The feasibility study (n = 25) and the RCT (n = 54) yielded excellent adherence and acceptability and supported the efficacy of the treatment (Beck Depression Inventory and Beck Anxiety Inventory). In the RCT, the largest effects were observed in anxiety during pregnancy and improvements in depression were maintained at nine months representing a moderately large effect size. Nine-month infant outcomes showed several medium-to-large effects favouring the intervention, statistically independent of maternal postnatal mood, in domains including problem solving, self-regulation, and most strongly in infant stress reactivity, which is known to be influenced by antenatal anxiety.
Conclusion Treating severe antenatal depression and anxiety with a BBB intervention appears feasible and effective. Results regarding a positive effect of anxiety reductions on infant outcomes are particularly encouraging. The cohort is being followed longitudinally with child outcomes at 2 years. To reliably detect clinically meaningful effects on later child outcomes, larger RCTs are likely to be required.

Key words
Antenatal anxiety and depression, CBT treatment, infant postnatal outcomes

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The effects of a Creative-Arts Therapies antenatal program for first-time mothers on levels of depression, anxiety and coping in the peri-natal period.

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Abstract

Objective/Background: In this pilot study, a psycho-education and a creative-arts therapy intervention program were combined to help prepare first-time mothers for the experience of labour and birth as well as aiming to assist them with reducing levels of depression and anxiety.

Methods: In total, 117 first-time mothers were assigned to either a Creative-Arts therapy program, another intervention group where they received informal support, or a control group. The Creative-Arts antenatal program for first-time mothers merged peri-natal psycho-education with movement/ dance, art, music, relaxation, guided imagery, and symbolic representation in order to assist women to prepare for the process of labour and birth. Psycho-education included preparation for labour, birth and early motherhood as well as exploring the women's own birth story.

Results: The study showed that combining a psycho-educational approach with a creative-arts component increased women's ability to feel well prepared for labour, as well as significantly decreasing their level of Trait Anxiety and reducing their post-natal levels of depression compared to the Informal Support group and the control group. The Informal Support intervention showed an increase in the rate of spontaneous birth compared to the control group and the Creative-Arts Therapy group.

Conclusion/Discussion: The implications of this creative approach for managing peri-natal anxiety were positive. The results may inform further development of effective creative-arts therapy peri-natal programs for women.

Key-words: *creative-arts, ante-natal interventions for first-time mothers, peri-natal anxiety and depression.*

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The effects of a Dance/Movement therapy ante-natal program for first-time mothers on labour and birth.

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Abstract

Objective/Background: Research shows that active labour promotes mobile and upright positions during labour, benefiting the labouring woman. Dance/movement therapy may encourage an active birth experience by allowing the labouring women to follow the rhythms and changes of the various stages of labour by remaining in an upright and mobile position.

Methods: A Creative-arts ante-natal research program for first-time mothers merged psycho-education with movement/ dance, art, music, relaxation, guided imagery, and symbolic representation in order to assist women to prepare for the process of labour and birth. Of 117 women in the pilot study, 46 first-time mothers were assigned by convenience sampling to a creative-arts therapy eight-week ante-natal program. Thirty women were allocated to the Questionnaire-Only control group. There were also forty-one women allocated to another intervention group where they received informal support and discussion. The women in the Creative-Arts therapy program moved to Roth's 5 Rhythms™ and music and were asked to imagine that each of the 5 musical rhythms/themes (flowing, staccato, chaos, lyrical and stillness) progressively aligned with the stages and phases of birth; early First Stage, active First Stage, Transition or late First Stage, Second Stage and Third Stage labour respectively.

Results: The Creative-Arts therapy group reported feeling significantly more in control during labour and birth and better able to express their feelings during labour compared to the Questionnaire-only Control group and more so than the Informal Support Group.

Conclusion/Discussion: Dance/movement therapy and the 5 Rhythms™ may assist women better prepare for labour and birth and warrants future research in the area of increasing coping during labour and birth.

Key-words: *dance/movement therapy, birth experiences, first-time mothers*

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Comparing changes in Physical Functioning, Mental Health Functioning and depression antenatally and postnatally in first-time mothers.

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Abstract

Objective/Background : The current study aimed to compare the physical and mental health functioning of first-time mothers both antenatally and postnatally in order to identify low functioning periods.

Method: One hundred and seventeen women were surveyed antenatally and postnatally on the SF-36 Health Survey, a measure of general health and wellbeing and the Edinburgh Depression Scale (EDS), a measure of perinatal depression. This study was part of a larger antenatal intervention study conducted at a women's hospital in Melbourne. First-time mothers were allocated to three research groups by convenience sampling. Two groups were intervention programs and one was a control group. All research groups also received the standard hospital antenatal program provided to first-time mothers.

Results: On the measures of physical health, energy, wellbeing and mental health, the participants reported that they were better able to cope physically postnatally than during their pregnancy. On measures of mental health functioning, subjects reported more emotional distress postnatally compared to the antenatal period. Furthermore, those participants who scored above 12 antenatally on the EDS were 50% more likely to report scores above 12 postnatally.

Conclusion/Discussion: The research confirms that physical functioning decreases in the antenatal period which may pose a risk factor for the development of postnatal distress. In addition to antenatal depression posing a risk factor for postnatal depression, the postnatal period poses an increased risk for mental health functioning for first-time mothers. Therefore treating antenatal depression may assist in reducing postnatal depression for first-time mothers.

Key-words: *physical functioning, perinatal depression, first-time mothers*

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Abstract Marcé 2016

Changes in fear of birth during pregnancy - a randomized controlled trial comparing internet-based cognitive behavioral therapy with standard care.

1. Background
   The reported prevalence of fear of birth (FOB) in Scandinavia is 7-23% (Ternström et al., 2015). Despite the high prevalence of FOB, the evidence regarding effective treatment is lacking. Since FOB has been described as a sub-construct of anxiety (Huizink et al., 2004) and fits the profile of psychological disorders, internet-based cognitive behavior therapy (iCBT) could be a way of treating FOB. Therefore, the aim of this randomized controlled study was to assess the effects of iCBT compared with standard care (SC) on levels of FOB during pregnancy.

2. Methods
   This is a prospective randomized controlled trial with a multi-center design. About 260 pregnant women with FOB in their second trimester of pregnancy was recruited from three different study centers. The women were randomized to either SC or iCBT. The iCBT aimed at helping participants observe and understand their fear, and to find new ways of coping with their anxiety. The SC, offered by the public maternity care service, aimed at reducing the fear and making the birth experience as positive as possible. Data was collected by questionnaires including validated psychological instruments at 17–20 weeks of gestation, 20–25 weeks of gestation and follow-ups at 30 weeks of gestation and 36 weeks of gestation.

3. Results
   The analysis is ongoing and preliminary findings will be presented.

4. Conclusion/Discussion
   This study will be the first randomized controlled trial comparing iCBT with SC for women with FOB. It will determine whether either of these treatments can decrease the level of FOB during pregnancy.

5. Key words: Fear of birth, iCBT, RCT

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Antenatal Depression and Stress: A Randomized Controlled Study

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Objective: Perinatal mental health is considered as a major public health concern [1]. Depressive symptoms are prevalent in 20 % of pregnant women [2], with 15 % showing depression during the first year postpartum. The Swedish Public Health promotes early parental intervention to improve mental health [3]. Mindfulness Based Childbirth and Parenting (MBCP) may be an effective prenatal parenting intervention, decreasing depression and stress.

Methods: RCT study, n=91, on MBCP antenatal parenting intervention and control group receiving conventional parental support. Baseline and outcome measures post intervention included the Edinburgh Postnatal Depression Scale (EPDS) and the Perceived Stress Scale (PSS-14).

Results: The mean change of the EPDS and PSS-14 in the intervention group of pregnant women and their partners is of clinical relevance. Post intervention pregnant women's EPDS scores improved (p=0,000) and PSS-14 scores (p=0,000). The partners in the intervention group also showed significant enhancement in EPDS (p=0,001) and PSS-14 (p=0,026). The control group of pregnant women presented lower perceived stress (p=0,001).

Conclusions: The outcomes indicate the intervention being more effective than standard antenatal care, to reduce stress and depressive symptoms among an at-risk Swedish population of pregnant women and their partners.

Perinatal Depression, Early Intervention, RCT

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Financial Support: Vetenskaps Rådet, Sweden

Pain sensitivity and HPA axis function in a birth cohort of depressed and healthy Latinas

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Abstract

Background: Latina mothers are disproportionately affected by postpartum depression (PPD), the leading medical complication among new mothers[1]. Dysregulation of the hypothalamic-adrenal-pituitary (HPA) axis is implicated in PPD in non-Latinas[2]. Pain sensitivity has been associated with PPD and dysregulation of the HPA axis[3]. This is the first study to explore these associations in a birth cohort of Latinas.

Methods: Women were enrolled in their third trimester of pregnancy and interviewed at 4 and 8 weeks postpartum. Depression status was determined using the Edinburgh Postnatal Depression Scale (EPDS) in their third trimester of pregnancy and 4 and 8 weeks postpartum. At 8 weeks postpartum, women underwent testing using the cold pressor test (CPT). Plasma adrenocorticotrophic hormone (ACTH) and serum cortisol (CORT) samples were sampled during a pre-stressor rest period and in response to the CPT. Four measures of pain sensitivity were collected: time to pain onset (threshold) and pain tolerance (in seconds) and pain intensity and pain unpleasantness were reported at the time of pain tolerance using visual analog scales. Associations between pain measures, hormone levels and depression status were assessed.

Results: A third of the women met the cutoff for depression using EPDS ($\geq$ 10) at enrollment. As expected, there was a positive and significant correlation between pain tolerance and serum CORT response to the CPT ($r = 0.453$, $p < .05$). There were significant differences in mean ACTH levels by depression status. Non-depressed mothers exhibited significant change in plasma ACTH from baseline to post-stressor ($p < .05$).

Conclusions: Future studies should explore the mechanisms associated with pain sensitivity, HPA axis function and postpartum depression in a larger sample of Latinas, especially given that our small sample size limited our ability to detect additional significant differences. An examination of the mechanisms associated with lower pain unpleasantness in depressed mothers is warranted.

Keywords: *Latina; pain sensitivity; cold pressor test; HPA axis; postpartum depression*

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Objectives: Critically-timed wake therapy (therapeutic sleep restriction) improves mood in one day in a majority of depressed patients (DP). We tested the hypothesis that early-night wake therapy (EWT: sleep 3:00 – 7:00 am) vs. late-night wake therapy (LWT: sleep 9:00 pm to 01:00 am) improves mood more in ante- vs. post-partum depression by differentially altering melatonin and sleep timing relationships.

Methods: In 54 women: 26 antepartum (17 healthy comparison-HC subjects), 9 DP (by DSM-IV criteria) and 28 Postpartum (8 HC, 16 DP), who underwent a randomized cross-over trial of one night of EWT vs. LWT, we measured, pre- and post-treatment, interview-based assessments of mood, plasma melatonin (sampled at 30-min intervals from 6:00 pm – 11:00 am), polysomnography (PSG) and melatonin-sleep phase-angle differences (PADs) in relation to ambient day length.

Results: After EWT, mood improved significantly more in antepartum than in postpartum DP ($p=.046$), while after LWT, mood improved more in postpartum than in antepartum DP ($p=.026$). After EWT, mood improvement correlated with alterations in PADs, which were greater in antepartum DP vs. HC and in responders vs. non-responders. In contrast, after LWT, mood improvement correlated with increases in total sleep time. Increased day length enhanced mood improvement after EWT in postpartum DP and advanced melatonin onset time associated with mood improvement in antepartum DP.

Conclusions: In ante- and post-partum depression, one night of a non-pharmacological behavioral sleep/wake intervention, targeted to specific underlying circadian rhythm pathogenesis, improves mood, offering a treatment strategy to women with a potentially devastating illness, consistent with the aims of “precision medicine”.

Key words: mood, sleep, melatonin

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Title: Internet Cognitive Behavioural Therapy for Women With Postnatal Depression: A Randomized Controlled Trial of MumMoodBooster

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Abstract

Objectives/Background: Fewer than 50% of postnatally depressed women seek help, even when identified as depressed (Austin et al., 2008). Left untreated, postnatal depression (PND) can have significant deleterious effects (e.g., maternal mental health and child development; Beck, 1998). Internet interventions can improve treatment uptake as they are accessible, convenient, and affordable. However, there are few published controlled trials examining the efficacy of Internet-based treatment for PND. We aimed to test the efficacy of a 6-session cognitive behavioural therapy (CBT) Internet intervention (the MumMoodBooster program) in a sample of postnatal women with a clinical diagnosis of depression.

Methods: A parallel 2-group RCT (N=43) compared the Internet CBT treatment (n=21) to treatment as usual (n=22). At baseline and 12 weeks after enrolment, women's diagnostic status was assessed by telephone with the Standardized Clinical Interview for DSM-IV (SCID-IV) and symptom severity with the Beck Depression Inventory (BDI-II).

Results: At the end of the study, 79% of women who received the Internet CBT treatment no longer met diagnostic criteria for depression. This contrasted with only 18% remission in the treatment as usual condition. Depression scores on the BDI-II showed a large effect favouring the intervention group (*d*=.83, 95% CI 0.20-1.45). Treatment adherence and program satisfaction was very good.

Conclusion/Discussion: Results suggest that our Internet CBT program, MumMoodBooster, is an effective treatment option for women clinically diagnosed with PND. This is one of only two controlled evaluations of specialized online psychological treatment among women clinically diagnosed with PND.

Keywords: postnatal depression, cognitive behavioural therapy, & internet intervention

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Maternal depression and anxiety, parent-infant interaction and infant social-emotional development following very preterm birth

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Objectives/Background: Very preterm (VPT) birth is associated with increased maternal psychological distress[1], sub-optimal parent-infant interaction, and infant social-emotional difficulties[2]. However, longitudinal research examining maternal psychological distress profiles in infancy and how this influences later outcomes is limited.

Methods: 113 mothers of 149 infants (84 singletons, 65 multiples) born <30 weeks' gestational age were recruited from the neonatal intensive care unit of the Royal Women's Hospital, Melbourne, Australia. Maternal symptoms of depression and anxiety were measured at several key time points using the Centre for Epidemiological Studies Depression Scale and the Hospital Anxiety and Depression Scale. At 12 months corrected age, mothers and infants participated in the Emotional Availability Scales, an observational assessment of parent-infant interaction, and the Infant-Toddler Social and Emotional Assessment was used to assess infant social-emotional development.

Results: Symptoms of depression and anxiety in mothers were initially high (43% and 46% above clinical thresholds respectively at 2 weeks post birth), and reduced in severity over time (both $p<.01$). Early maternal distress predicted later lower maternal sensitivity and poorer infant social-emotional development e.g. more depressive symptoms in the newborn period predicted lower infant social-emotional competence at 12 months (regression coefficient, -0.65; 95% CI, -1.0, -0.3; $p<.001$).

Conclusions/Discussion: Mothers of VPT infants are at high risk of psychological distress, both during the early hospitalization period and after discharge, although symptoms do improve over time. The level and chronicity of distress impacts upon maternal sensitivity and infant social-emotional development, suggesting early intervention may be helpful.

Key words: prematurity, depression, parent-infant interaction

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Improving Access to Perinatal Depression Care: The Massachusetts Child Psychiatry Access Project for Moms

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Objectives: To describe a new population-based program to address perinatal depression, the Massachusetts Child Psychiatry Access Project for Moms (MCPAP for Moms)[1] and its first 18 months of program utilization data.

Methods: MCPAP for Moms builds providers' capacity to address perinatal depression through: 1) trainings and toolkits for providers on evidence-based guidelines for depression screening, assessment and treatment;[2] 2) access to real-time psychiatric consultation and care coordination for perinatal care providers; and, 3) care coordination. Practice enrollment and program utilization data were recorded in the MCPAP for Moms Live database. Data were pooled to calculate utilization of the program since its inception.

Results: Since its launch in July 2014, MCPAP for Moms has enrolled 96 Ob/Gyn practices, conducted 100 trainings, provided 1418 care coordination activities and 958 phone consultations, serving 1123 perinatal women. Of the consultations provided, 64% were with obstetricians/midwives, 16% with psychiatric practitioners, and 21% with other providers. Telephone encounters often resulted in medications changes (53%) and/or therapy referrals (38%). The total cost of the program, including administrative expenses, is $8.33 per perinatal woman per year ($0.69 per month) or $600,000 for 72,000 deliveries annually in Massachusetts.

Conclusions: Obstetric practices are enrolling in MCPAP for Moms and using its services. Care coordination is actively utilized and phone consultations frequently result in changes in care. The volume of encounters, number of women served, and low cost suggests that MCPAP for Moms is a promising new approach that can help front line providers effectively prevent, identify, and manage perinatal depression.

Key Words: depression, obstetric, access

Acknowledgements: Funded by the Massachusetts Department of Mental Health.

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Improving Perinatal Depression Care in Obstetric Settings: PRogram In Support of Moms (PRISM)

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Objective/Background: The goal of this study was to pilot the PRogram In Support of Moms (PRISM), aimed at improving depression screening, assessment and treatment in obstetric settings via: (1) Ob/Gyn provider access to resources, referrals, and psychiatric telephone consultation; (2) practice-specific training, implementation support and toolkits; and, (3) treatment engagement of patients with stepped care responses to depression screening/assessment.

Methods: Four Ob/Gyn practices were recruited and assigned to receive PRISM[1] or enhanced usual care with all four having access to a state-wide psychiatric consultation and care coordination program.[2] Their patients with Edinburgh Postnatal Depression Scale (EPDS) ≥10 were recruited during pregnancy or postpartum, and completed the EPDS at 28-40 weeks gestational age, and 2 -12 weeks postpartum depending on point of recruitment.

Results: Among patients served by PRISM practices (n=26), 91% (n=23) reported their mental health needs were met and that they had a positive experience; as compared to 67% (n=6) in the enhanced usual care practices (n=9). Among enhanced usual care practices, EPDS scores improved from 13.34 baseline to 11.52 at follow-up (p=.314). The PRISM practices had a greater improvement in EPDS scores, from 12.01 at baseline to 8.34 at follow-up (p=.001), with a difference-of-differences of 1.84 among the EPDS scores in the PRISM practices as compared to the enhanced usual care practices (p=.393).

Conclusion/Discussion: PRISM has the potential to differentially improve treatment rates and depression outcomes as compared to enhanced usual care. PRISM may be able to optimize perinatal depression care in obstetric settings by addressing patient, provider and systems level barriers.

Key words: perinatal depression, treatment, obstetric

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The Australian Perinatal Depression Initiative (NPDI): a policy evaluation

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Symposium Abstract

Background: The morbidity and cost associated with maternal mental illness in the perinatal period (pregnancy - 1st postnatal year) is substantial for mother, infant, and family and may impact on the health of the next generation. The Australian National Perinatal Depression Initiative (NPDI) endorsing routine depression screening and psychosocial assessment and improving access to mental health services for perinatal women was implemented 2008-2014.

Methods: a retrospective evaluation of the NPDI's impact on 1) service uptake and 2) cost in terms of psychiatric hospitalisation (data linkage for NSW & WA) and Medicare MH item (aggregate data national and Jurisdictional), was undertaken as was 3) Policy analysis of the NPDI pre/post its introduction. Finally, due to the absence of standardised reporting on the implementation of the NPDI we undertook 4) data development with a view to inclusion of one or more perinatal mental health item(s) in the Perinatal National Minimum Dataset – eventually allowing for prospective evaluation of the NPDI.

Results: are reported for each of the objectives with a focus on process required for national policy development and evaluation; the strengths, limitations and challenges of these "big data" methods.

Conclusions: It is recommended that new mental health policy initiatives incorporate a planned strategic approach to evaluation, which includes sufficient follow up to assess the impact of public health strategies.

Keywords: Policy, evaluation, psychiatric admissions, postnatal

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Validation of the Whooley questions for antenatal depression and anxiety among low-income women in urban South Africa

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Background/Objective

In South Africa, approximately 40% of women suffer from depression during pregnancy.[1, 2] Although perinatal depression and anxiety are significant public health problems impacting maternal and infant morbidity and mortality [3], no routine mental health screening programs exist in South Africa. A practical, accurate screening tool is needed to identify cases in these busy, resource scarce settings.

Method

A convenience sample of 130 women between 22 and 28 weeks was recruited from Rahima Moosa Hospital antenatal clinic. Women were interviewed by the principal investigator and completed a biographical interview, the Edinburgh postnatal depression scale (EPDS), the Whooley questions and a structured clinical interview.

Results

The results will demonstrate the sensitivity and specificity of the Whooley questions and the EPDS in identifying depression, anxiety and stress disorders of varying severity. We also identify the importance of personal, social and cultural context in influencing the content and expression of these common perinatal conditions.

Discussion and Conclusion

Currently there is insufficient evidence to support the use of the Whooley questions in a perinatal setting.[4] We conclude by commenting on the validity of the Whooley questions in the context of urban, South Africa, and the importance of ensuring clinical interviews to supplement any screening tools.

Key Words
Perinatal depression; Screening; South Africa

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Authors Richard Fletcher and Chris May

Adapting behaviour change paradigms for delivering support to new fathers via mobile phones.

1. Objectives/Background

Mobile phones provide a potential conduit to reach time-poor fathers in the perinatal period. Following successful health-promoting models targeting diet, exercise, smoking and alcohol, text-based messages are being designed to deliver information and support to mothers and, more recently, to new fathers. However fathering behaviours lack the precision of typical health behaviours and men in the transition to fatherhood may need information, on relationships for example, which is less amenable to brief, one-way messages. A fathering-specific model of text-based information transfer is needed.

2. Methods

As part of a beyondblue-funded project delivering texts to new fathers a model of text-content development has been developed through three steps: 1) The key elements in developing content for text-based programs targeting common health behaviours were identified; 2) These were matched against the evidence of fathers' needs in the perinatal period to pinpoint conceptual overlap as well as gaps. 3) A draft model of father-specific information needs was applied to the message content delivered to the mobile phones of 350 new fathers over a 12 month period.

3. Results

The model of fathers' information needs linked to evidence of established behaviour change methods was applicable to the texts and provided a theoretical guide for evaluating the effectiveness of the mobile-phone based program. Differences from standard health promotion messaging were identified.

4. Conclusion/Discussion

New technologies will continue to be developed and utilised to promote health-related behaviours. Having evidence-based models for designing and evaluating novel approaches will be essential to provide effective support to new parents.

Key words; Fathers, SMS, translation research, perinatal, internet

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The Father Friendly Initiative in Quebec: Enhancing health professionals' competencies (Canada)

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Background. Scholars have paid attention to the development of the father's role in the family, particularly in regards to father involvement. It is well-known that father involvement benefits children's cognitive and social development and contributes to mothers'well being. Furthermore, fathers who are involved with their children right after birth tend to stay involved later on in life. Early father involvement is thus also seen as a protective factor of child abuse and neglect. A model of early father involvement has revealed the direct contributions of perceived efficacy, depression and anxiety to fathers' involvement in the first six months after the birth of a child. Recent researches have highlighted that social and professional support can be protective factors of father involvement in the same period. The Father Friendly Initiative within the Family (FFIF) program was developed in order to empower health professionals to support father involvement, detect fathers' mental health problems and ultimately prevent child abuse and neglect. Objectives. This presentation will describe the FFIF, the objectives and content of the workshops, their implementation in three regions of Quebec, Canada, and a brief overview of the qualitative evaluation. Method. Phase 1 of this program was implemented with 40 interdisciplinary professionals working in perinatal health programs and evaluated from 2010-2012. Phase 2 was implemented with 400 health professionals, managers and physicians in three regions of Quebec, Canada, from 2012-2017. Results. Health professionals are adopting father friendly attitudes, beliefs and behaviors after participating in this innovative program. Discussion will explore the implications for professional practices towards fathers as well as for policy development for the support of fathers' mental health.

Keywords : Fatherhood; intervention; mental health

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Miscarriage: A mental health risk factor for immigrant women

Perinatal bereavement is a phenomenon that affects more than 100,000 women each year in Canada. Studies have revealed the resulting psychological distress of both parents and the negative repercussions on conjugal relationships, as well as on the relationships with the other children. The consequences of perinatal bereavement have been well documented, but mainly only for white, non-immigrant couples. Very few studies have looked at the experience of immigrant families. In fact, the existing data are not completely transposable to this study population, given the specificities of the migration context. Hence, there is a pressing need to investigate the area where immigration and perinatal bereavement intersect. Objectives/Methods. A cross-sectional study examined the differences between immigrant and non-immigrant women's mental health (depression, anxiety, grief, mental health) and marital adjustment after an early pregnancy loss (N: 251). Results. Immigrant mothers reported significantly more depressive and grief symptoms and less positive mental health compared to non-immigrant mothers. There was no difference in the anxiety and marital adjustment scores between groups. For both immigrant and non-immigrant mothers, persistent posttraumatic symptomatology exists long after the loss, since scores in depression, anxiety and grief did not vary in function of time since miscarriage. Conclusion. Misscarriage is a mental health risk factor for immigrant women. Interventions need to be devised to take into account the specific needs of these mothers.

Miscarriage; anxiety; depression; immigration

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Results from the Bordeaux's MBU database

Risk factors for maternal mixed states and request of placement of the baby at discharge

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Objectives:

MBUs host very vulnerable mothers and infants, requiring specific joint care, taking into account the specificities of mood dysregulation. The objectives of the present research carried out in a population of dyads jointly admitted in a MBU were to explore the factors independently associated with (i) maternal mixed states (ii) request of placement of the baby at discharge.

Methods:

Data on mothers and babies (n =146) were retrospectively collected from medical records of dyads jointly admitted in the MBUs of the University Department of Adult Psychiatry, Bordeaux, France. Multivariate logistic regressions were used to explore which demographic and perinatal variables were independently associated with (i) a mixed mood state in the mother (ii) the request for a placement of the infant at discharge.

Results:

About 30% of the mothers presented a mixed episode whose occurrence was significantly higher in women with history of unipolar depression (OR=6.8, 95%CI952.0-22.6), higher socio-professional status (OR=4.0, CI95%=1.4-11,5) and pregnancy onset of the current episode (OR=2.9, CI95%=1-8,3).

A mother-infant separation was advocated by the team for about 25% of the dyads. Maternal diagnosis of psychotic disorder (OR=6,3, CI95%=1,6-24,1), personality disorders and/or addiction (OR=5,1, CI95%=1,1-22,8), young age at first hospitalization (OR=0,9, CI95%=0,8-0,9) and placement history in siblings (OR=4,2, CI95%=1,1-16,5) were independently associated with a higher risk for a request of separation at discharge.

Conclusion:

One out of three mothers hospitalized in Bordeaux's MBU presented a mixed episode of mood disorder, underlying the need for universal antenatal maternal mental health screening. Mothers with a separation from the child proposed at discharge presented with the most severe disorders but also with specific "parenthood disorders", independently from psychiatric diagnosis.

Key words: Mother and baby units, mixed mood episode, infant placement

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Effects of maternal perinatal mood variation and coping stability on the infants

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Rita Castro is a Postdoc at the University of Zurich. Rita's general research area is prenatal mental disorders and infant development. Her interests include prenatal depression, breastfeeding, prenatal and lactational programming of the infant development.

Maternal coping styles and mood may affect infant outcomes[1,2]. We examined changes in maternal coping styles and mood from pregnancy until six months postpartum, and investigated their relation to breastfeeding and infant temperament. N= 162 pregnant women and their infants participated in this study. Maternal mood and coping were assessed at 20, 28 and 36 gestational weeks, and at one and six months postpartum; infant feeding data was obtained at one and six months postpartum and infant temperament at six months. Different dimensions of coping presented small significant changes over time. Increased use of problem-focused coping at 20 weeks gestation(B= .051, p= .007) was associated with higher infant effortful control, whilst decreased use of problem-focused coping at 20 and 28 weeks gestation(B= -.068, p= .007; B= -.086, p= .002) was related to higher infant negative affect. Maternal mood showed a significant changing trajectory. Low maternal mood at 20 weeks gestation was associated with higher infant extraversion(B= .047, p= .004). Both maternal coping and mood during pregnancy were independently associated with infant temperament. In this mentally healthy sample, neither was associated with breastfeeding.

Mood, Coping, Infant Temperament

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Australia's first mental health and wellbeing campaign for new fathers: Planning, implementation and progress of the Healthy Dads project.

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This presentation will report on the planning, implementation and progress of Australia's first national mental health and wellbeing campaign for new fathers. The campaign aims to support men's mental health by facilitating early access to information and support for managing the stresses of new parenthood. New fathers are at an increased risk of experiencing psychological distress, however, their distress is mostly unidentified and does not receive tailored support[1]. Previous research by *beyondblue*[2] has identified several psychological barriers to engaging men about their mental health in the perinatal period, including a) the internalised pressure men can feel in their fathering role which encompasses feelings of pride and self-sufficiency, a reluctance to share their distress with their partner, and feeling shame and a sense of failure when they are unable to cope with the challenges and commitments of fatherhood by themselves; b) Many new fathers have an incomplete and stigmatised understanding of perinatal anxiety and depression and how it can affect men; and c) Often new fathers rely on their partner to be the conduit to advice and support, or they wait until a crisis point is reached to seek help for themselves. This presentation will outline the rationale and approach to the digital and social media campaign for new fathers and how it addresses the identified barriers to disrupt men's traditional information and support seeking behaviours. Preliminary data of the campaign's effectiveness in reaching and engaging new fathers will also be presented.

Key words: fathers, mental health, help-seeking

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Participating in What Were We Thinking and Perinatal Common Mental Disorders: Assessing Mechanisms for Change

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Objectives / Background
What Were We Thinking (WWWT) targets two potentially modifiable risk factors for perinatal common mental disorders (PCMD) among women: unsettled infant behaviour (UIB) and poor quality intimate partner relationship. The aim of this ancillary analysis was to establish whether these factors are associated with the outcome as plausible mechanisms of change, by investigating whether: (a) PCMD at 6 months postpartum are associated with these factors; (b) there are differences between trial arms; and (c) changes in these factors from baseline to endline are associated with participation in WWWT, for subgroups based on baseline characteristics.

Methods
In the cluster-RCT testing the effectiveness of WWWT, English-speaking, primiparous women completed computer-assisted telephone interviews at 6 weeks and 6 months postpartum. Standardised and study-specific measures were used to assess UIB and quality of intimate partner relationship.

Results
Complete data were provided by 364 women at endline. (a) PCMD were significantly associated with UIB, and with fewer affectionate and more critical partner behaviours. (b) Overall, there were no significant differences in these factors between trial arms. (c) Parents with unsettled infants at baseline reported significantly less UIB at endline in the intervention than the control group. Among those whose intimate partner relationship was optimal at baseline, participation in *WWWT* was associated with significantly fewer critical partner behaviours at endline.

Conclusion
The risk factors targeted by *WWWT* were associated with PCMD at endline, and were modifiable for some groups of parents. Parents whose babies are more settled at baseline may be less likely to apply strategies to reduce UIB than those whose babies are unsettled. Couples with less optimal interpersonal interactions in early parenthood may need more than a single session to modify these interactions. Thus the factors targeted by WWWT are plausible mechanisms of change although for some groups of parents, flexible implementation may be required.

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Key words

Quality of intimate partner relationship, unsettled infant behavior, risk factors, perinatal common mental disorders

Marce 2016 Abstract

Paper #3 of Symposium:

Innovative interventions to support fathers' mental health

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2. University of Newcastle (Australia)
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Centre de Recherche Epidémiologie et Statistique Sorbonne Paris Cité (CRESS)
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The Dad Bridge: fatherhood as motivator in clinical practice with men and their families.

Dr Matthew Roberts, Psychiatrist,

Objectives/Background: Over 7 years fathers have been invited into an urban mixed public/private perinatal psychiatric practice with increasing success (1) in terms of engagement and outcome. **Methods:** Initially, as is common, mothers were the referred patients, with fathers seen as part of family-wide maternal treatment; however practice and referral pathways have now evolved to the point of majority paternal and couple referrals for perinatal treatment. **Results:** A uniting feature of this work has been the clear salience of each man's fatherhood in motivating him. Indeed, many of the presenting problems involve paternal loss, fear, anger and shame exerting powerful motivation towards unhelpful coping and mental ill health (2). **Conclusion:** In this presentation using clinical material, the harnessing of fathers' desire for the best relationship they can have with their child to overcome strong difficult emotions will be described. Cases will suggest avenues for the use of fatherhood as bridge (3) into work on a man's individual health as well as the health of his family (4) in the context of a holding therapeutic relationship. **Discussion** will address the

implications, including the challenges, of fatherhood as motivator, in working with dads in all clinical settings.

Key Words:
fathers' mental health; father involvement; innovative interventions

References:

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Abstract Title, Author and Affiliations

Reproductive pathology and perinatal outcomes for infants of women with schizophrenia and other psychotic disorders: a population study.

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Abstract Body

Objective/Background

A previous population-based cohort study of 6,303 infants born in Western Australia showed significant increases in rates of pregnancy, birth and neonatal complications for infants born to women with severe mental illness[1]. It concluded maternal risk factors acting with biological and environmental factors could be operating to increase the rates of reproductive pathology for these women. Our current whole-population record-linkage study of Western Australia mothers aimed to compare reproductive pathology for women with severe mental illness (cases) and perinatal outcomes for their infants to that of mothers with no recorded history of mental illness (comparisons).

Methods

This study examined statutory midwives records of 467,945 births to 246,870 women during 1980 to 2001 in Western Australia[2]. Obstetric complications for case women (n=7,508) and perinatal outcomes for their infants (n=16,486) were compared with those for comparison women using univariate and multivariate statistical analyses.

Results

Case mothers were significantly more likely to be: aged less than 20; single; Aboriginal; resident in an area of low socio-economic advantage; and to experience obstetric complications relative to comparison women. Pregnancies of case women were more likely to result in an infant born: by caesarean section; before term and of low birth weight. Time of onset of psychosis was also significant. Infants born to comparison women experienced fewer serious obstetric complications than infants born before psychosis onset, and these infants experienced fewer serious obstetric complications than infants born after psychosis onset.

Conclusion/Discussion

Case women were more socially vulnerable and experienced significantly greater reproductive pathology than comparison women. Their infants were significantly more likely to experience adverse perinatal outcomes, indicating a need for targeted antenatal and postnatal care.

Key Words

Severe mental illness, obstetric complications, risk factors.

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Abstract Title, Author and Affiliations for Symposium Presentation

Patterns of obstetric, psychiatric and other inpatient service utilization among women giving birth in Australia.

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Abstract Body

Objective/Background

To examine the length of stay for obstetric, psychiatric, and other inpatient admissions among Australian childbearing women; and to compare the number of psychiatric inpatient admissions between women with at least one psychiatric admission in the perinatal period and women with one or more psychiatric admissions but not in the perinatal period.

Methods

Data were extracted from NSW & WA birth and hospital admission data collections to include women giving birth between July 2000 and December 2009. The cohort comprised three groups of women: Case women with at least one psychiatric admission within the perinatal period; Comparison 1 women with at least one psychiatric admission but only outside of the perinatal period; and Comparison 2 women without any psychiatric admissions during the study period. Outcomes were number of psychiatric admissions, and length of stay examined in terms of admission type (obstetric vs. psychiatric vs. other). Outcomes were modelled using multivariable generalised linear models, adjusted for maternal socio-demographic factors.

Results

Unadjusted results indicated higher burden of all admissions in both psychiatric groups (Cases and Comparison 1) compared to the non-psychiatric group (Comparison 2). Multivariable analysis showed that socially disadvantaged Case women had significantly more psychiatric admissions than their less disadvantaged counterparts, whereas the trend was reversed amongst Comparison 1 women. Uninsured Case women had more psychiatric admissions and these were of longer duration than either insured Case women or uninsured Comparison 1 women.

Conclusion/Discussion

Results suggest a greater burden of psychiatric morbidity associated with the perinatal period especially in disadvantaged mothers[1]. This has significant cost implications for Australia's public health system[2].

Key Words

Perinatal, service utilisation, obstetric, hospital admission, psychiatric.

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The role of psychiatrists in multidisciplinary teams for perinatal women: findings from consultation–liaison work.

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Objectives/Background

In Japan, there is an urgent need to establish multidisciplinary perinatal care. We describe the characteristics of perinatal women requiring psychiatric treatment, and show the effectiveness of multidisciplinary interventions in tertiary hospitals offering perinatal psychiatric services.

Methods

We collected data in two ways:

(1) We collected retrospective data from medical records of women referred between 2008

and 2014 to psychiatrists at Tohoku University Hospital during pregnancy or within a year postpartum.

(2) We conducted a prospective cohort study of 45 perinatal women with psychiatric disorders at Hyogo College of Medicine. The multidisciplinary intervention comprised psychoeducation, support for risk-benefit decision making, and parenting skills training. The consultation–liaison psychiatrist was responsible for assessing psychiatric symptom severity during the intervention. To assess effectiveness, the Patient Health Questionnaire-9 (PHQ-9), Hospital Anxiety and Depression Scale (HADS), and Self-Rating Depression Scale (SDS) were completed by the women at pre- and post-intervention assessments.

Results

Retrospective data showed that between 2008 and 2014, 401 out of 6402 women (6.3%) were referred to psychiatric services. The referral rate increased from 3.0% in 2008 to 11.4% in 2014. There were 345 women (86.0%) referred during pregnancy, on average at 19.2 weeks. There were 362 women (90.3%) referred from obstetricians. Prospectively, our participants showed decreased PHQ-9 (mean±SD: 8.27±5.60 to 6.75±4.67, p=0.001); decreased HADS-D (9.23±4.82 to 6.64±4.38, p=0.001); decreased HADS-A (9.34±4.17 to 7.73±3.54, p=0.002); and decreased SDS (53.8±8.70 to 47.5±7.91, p=0.001).

Conclusion/Discussion

The number of perinatal women requiring psychiatric treatment is greater than previously reported in Japan, suggesting an increasing need for perinatal psychiatric treatment. Our prospective results suggest that effective management of psychiatric disorders can be delivered by perinatal multidisciplinary teams, with a consultant–liaison psychiatrist ensuring appropriate treatment is delivered.

Key Words

psychiatric disorder, consultation-liaison psychiatrist, multidisciplinary intervention

Training Psychiatrists in Reproductive Psychiatry: The U.S. Perspective

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Objective/Background: In recent years, both research and clinical domains around the world have recognized the importance of sex differences for a variety of medical conditions. This burst of attention has not, however, been reflected in the education of future psychiatrists. This presentation will orient attendees to the current state of reproductive psychiatry education and propose a need to define minimum knowledge standards.

Methods: The National Task Force on Women's Reproductive Mental Health conducted three surveys, of residency training directors, women's mental health fellowship directors, and perinatal specialists, about the current state of reproductive psychiatry education. All surveys were IRB-approved and conducted electronically, and responses were deidentified.

Results: We will present, in graphic and narrative form, the results of our 3 surveys, including, for example:

- 59% of residency training programs require some education in reproductive psychiatry – but only 36% of residency training directors feel all residents should be competent in this field.
- 73% of residency training directors report that their program requires 5 or fewer hours of didactic training across all four years.
- There are at least 10 independent Women's Mental Health fellowship programs, the majority of which have been founded in the past four years
- At least 23 Psychosomatic Fellowship Programs and 4 Women's Health fellowship programs advertise an opportunity for subspecialty training in Reproductive Psychiatry.

Conclusion/Discussion: Creation of minimum training requirements is an important first step in advancing the field of reproductive psychiatry. Next steps will include discussion of how best to

finalize and disseminate a national curriculum for residency, which our group is in the process of creating.

3 Key Words: reproductive psychiatry, education, training programs

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Implementation of Partial Hospital MBUs: Gaining Traction in the USA

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Objectives/Background:

Historically, the US has lagged behind Europe and Australia in the establishment of MBUs[1]. The first US-based MBU opened in 2000 with three others following but not until more than a decade later. Since 2014, there has been a surge of activity with another wave of MBUs poised to open in the near future. We will describe both traditional and novel methods of implementing MBUs in the current US health care market with the goal of inspiring and sustaining the current trend.

Methods:

A survey of existing and soon-to-be implemented MBUs in the US was undertaken by reviewing consultation inquiries with the Women & Infants Hospital MBU, which is the longest established MBU in the US[2].

Results:

At present, there are eight US states with a MBU presence or soon-to-be implemented presence. All but a few[3] MBUs are designed as partial hospital units, meaning treatment occurs Monday-Friday from approximately 9 am-2:30 pm. All programs accept pregnant and postpartum women. All programs are or will be reimbursed by both private and public health insurance and have multidisciplinary clinical staff with perinatal expertise.

Conclusion/Discussion:

The concept of intensive specialized mental health treatment for perinatal women in a setting that allows mother and baby to remain together is finally taking hold in the US. The overwhelming majority of these programs are in partial hospital settings which reflect the broad acceptability of this model particularly with insurers. There is high patient satisfaction among programs with a record of growth and sustainability.

Key words: MBU, Implementation and dissemination, treatment

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Parents' mobile screen use while in the company of infants and young children: an exploratory qualitative study.

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Background
Smartphone use is a rapidly-growing, socially-acceptable interactional habit. Parents commonly use phones while with their infants. While there are anecdotal reports about adverse impacts on children's social/emotional development, safety and wellbeing, little research is available[1]. The aim was to establish experts' opinions on the consequences of parents' use of handheld mobile devices for their young children.

Methods
An exploratory qualitative study using semi-structured interviews with experts in the field of infant mental health, early childhood or interactions between human behaviour and information technology. Interviews were taped and transcribed and data analysed thematically.

Results
All 17 participants described parents' use of smartphones while with their infants as widespread and becoming central to family life. Major themes were: distraction, alterations to attention, shared gaze, responsivity, proto-conversations, body language and modelling of socially defined behaviours; parents' use for self-soothing, reflexivity and social connection; drivers of use relating to cultural, psychosocial, mental health and unique infant/parent factors. Sub themes were: safe doses of parents' screen use; infants' capacity to compete; vulnerable infants; and radiation exposure to wireless networks. There were divergent opinions related to the risk for infants and the infant/parent relationships.

Conclusion
Parents' use of smartphones while with young children is becoming ubiquitous. Expert opinion is that there might be risks, but little theory to understand use as a key factor in infant/parent interactions. Current use will change as devices become wearable and physically/psychologically embedded, allowing devices to monitor infants and mediate early childhood relationships. There was a consistent view that well-theorised observational research is needed urgently to inform clinical guidance and policy.

Key words
Smartphones, infant, parenting

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"Identification Reformulation "
Now Let's Start Addressing Perinatal Anxiety and Depression in Pregnancy

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Objective
Rather than a Freudian perspective of the maternal tasks of pregnancy [1] as the title suggests, we argue for the identification and treatment of anxiety and depression in pregnancy, particularly given the findings from our New Zealand prevalence study.

Methods
The data are from the 'E Moe, Māmā: Maternal Sleep and Health in Aotearoa/New Zealand' study [2]. In the third trimester participants pregnancy completed 3 scales: Edinburgh Postnatal Depression Scale, the Life Stress Scale and the Brief Measure of Worry Scale.

Results
Data were obtained from 406 Māori women and 738 non-Māori women. Depressive symptoms (22% vs 15%), anxiety symptoms (25% vs 20%), significant life stress (55% vs 30%) and a period of poor mood during the current pregnancy (18% vs 14%) were more prevalent for Māori than non-Maori women. Less than 50% of women experiencing periods of low mood or anxiety during their current pregnancy sought help. Younger women were at a higher risk of depressive symptoms, significant life stress and dysfunctional worry

Conclusion:
For a significant group of women, pregnancy is not the state of well being it is often portrayed to be. Antenatal mental health issues require as much or more attention and resourcing as the postpartum period. Identifying and treating women in pregnancy has the potential to reduce the rate of postnatal mental health disorders.

Key words: depression, anxiety, perinatal.

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This work was supported by the Health Research Council of New Zealand grant number 09/255

Objectives/Background

To understand the effect of childhood sexual abuse on women during the childbearing year including pregnancy, labor, delivery, breastfeeding and attachment.

Methods

Meta-analysis.

Results

Two in five women have been sexually abused, however, under-reporting is common. Neurobiological changes secondary to the trauma experience influence survivors mental and physical health as well as relationships. Survivors experience higher levels of PTSD, depression, pregnancy discomforts, poor general health and chronic conditions that place them into the "high risk" pregnancy category influencing labor interventions and methods for delivery.

Memories of prior sexual trauma are often re-triggered by pregnancy and survivors can also be re-traumatized by the management of pregnancy and delivery. Sexual abuse history is also strongly correlated with an increased risk of Intimate Partner Violence, behavioral difficulties and substance abuse.

Conclusion

Childhood sexual abuse has long term effects on women. Management of care with regard to a history of abuse can greatly affect outcomes for mother and infant, satisfaction with care, as well as feelings of efficacy.

Key Words: Childhood Sexual Abuse, Pregnancy, PTSD

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Background
Having 'time for yourself' has been reported by mothers in qualitative studies as a potential way of preventing and treating postnatal depression.[1] This is the first epidemiological study to report on the association between 'time for self' and maternal depression after childbirth.[2]

Methods
The Maternal Health Study is an Australian prospective cohort study of 1507 first time mothers. Women completed baseline questionnaires in early pregnancy and follow-up questionnaires at 6 months postpartum. The Edinburgh Postnatal Depression Scale was used to identify depressive symptoms (≥13).

Results
At six months postpartum, just under half of women (49%) had time for themselves (when someone else looked after their baby) once a week or more. We observed a clear dose-response effect between the frequency of 'time for self' and the prevalence of depressive symptoms. Measures of social support were significantly associated with the frequency of time for self, however, in multivariable regressions adjusting for these (and other recognised risk factors for maternal depression) the association between less frequent time for self and depressive symptoms remained significant (Adjusted OR = 1.67, 95% CI 1.07-2.60).

Conclusion
We found a significant and robust association between regular time for self and improved maternal mental health, which was not explained by social support. Ensuring women get regular respite from the challenges of caring for a young baby requires ongoing support and input from others, and may be an under-recognised and effective way of promoting maternal mental health.

Keywords: postnatal depression, social support, prevention

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Objective: Our program brings women with substance abuse (SA) in to receive care during their pregnancy, delivery and post-partum, to optimize outcomes both for the mothers and their babies, using a multidisciplinary team including the SA specialist, the Obstetrician, the Pediatrician , Social services and the Spiritual care advisors . Our secondary objective is to compare outcomes of Buprenorphine/Naloxone to Methadone maintenance therapy, on immediate newborn Abstinence syndrome (NAS).

Methods: Patient were referred to our MCHAT program from various sources, including emergency rooms, half way houses, other institutions (mostly psychiatric) and other obstetricians. Some women were admitted for detoxification in house and started on maintenance therapy, usually Buprenorphine/naloxone (B/N), while others were admitted directly as outpatients. Maintenance therapy was decided by the patient and the SA expert. All patients had a subsequent psychiatric and a Neonatal consultation. When admitted, all patients had a social service consult as well as Spiritual care consult. Outcomes are reported here with our experience from a single institution in Boston. We consider a successful outcome, if the mother delivered a live birth and had custody of the child. Secondary outcomes included length of stay for the newborn with NAS, comparing B/N to Methadone.

Results: Since 2008 we have successfully followed & delivered 175 women in the program. Since most patients entered our program well into the second trimester, rates of miscarriage or abortion are unknown. Most patients were single with the majority of the partners being also in recovery. The prematurity rate was low. The length of stay for the newborn was greater with Methadone as compared to B/N (13.5 vs. 11 days). The longest length of stays were secondary to poly-substance use e.g. Addaral, SSRIs, SNRIs.

Conclusion: One needs a multidisciplinary approach to successfully treat and improve outcomes for women with issues of SA.

Title: A NICU Based Intervention for Parents of Preterm Infants Affects Early Maternal Sensitivity and Maternal Mental Health

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Abstract

Background:
A mother's sensitivity to her baby predicts many positive outcomes and while studied in full-term populations, it has been less studied in very preterm mother-infant dyads. Given its importance, sensitivity may be critical in the development of already, at-risk, preterm infants. Intervention programs designed for parents (both in the NICU and post discharge in the home) to improve developmental outcomes for these infants have shown positive effects in not only enhancing maternal sensitivity but reducing psychological distress for these mothers.
Method:
A 10-session, NICU-based intervention (PremieStart), designed primarily to improve preterm child outcomes, commenced at 30 weeks of gestation. Maternal sensitivity and mental health as secondary outcomes were assessed at full-term equivalent age (FTE) and at 2 years.
Results:
Mothers in the intervention group had enhanced sensitivity and recognition of their infant's behaviour at term equivalent age. They responded more appropriately to positive and negative infant signals, stressed their infant less and were more in synchrony with their preterm infant. They also had reduced psychological distress at 2 years; intervention mothers reported less depressive symptoms than control mothers. Unexpectedly, mothers reported low levels of depression at both entry to the study and at 40 weeks (FTE).
Conclusion:
Early, hospital based NICU interventions have short and long term benefits for mothers. Behavioural interventions (with a psychoeducational component) are effective in enhancing maternal sensitivity in the short term and in reducing maternal psychological distress up to 2 years.
Findings suggest mothers are tuning into subtle signs expressed by their very preterm infant and early intervention provides a 'kick start' to set up a foundation on which to build future interactions.

Key words: prematurity, interventions, mother-infant interaction

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Hospital costs associated with perinatal mental health diagnoses for Australian women

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Background: Previous studies reported hospital admission rates and length of stay related to depression in the perinatal period, but have not evaluated cost.[1,2] This analysis aims to measure hospital-related costs in women presenting with mental health morbidity in the perinatal period using available administrative databases.

Methods: NSW & WA birth and hospital admission data collections for women giving birth between July 2000 and December 2009 were analysed. The cohort was divided into three groups: Case women had ≥1 psychiatric admission within a perinatal period; Comparison 1 women had ≥1 psychiatric admission outside of any perinatal period; Comparison 2 women had no psychiatric admissions. Hospital separations were costed using national hospital cost data for 2009-2010 based on diagnosis-related group codes. Hospital costs were summed over the study period and analysed with a Generalised Linear Model with gamma distribution adjusted for covariates.

Results: Total mean hospital costs for Cases were significantly higher ($P<0.001$) than Comparison 2 with the difference in mean costs estimated at $15,223 [$15,049, $15,395]. Significant interactions were found with unmarried Cases having significantly higher costs ($7000) than married Cases. Cases without private insurance also had significantly higher costs than Cases with insurance.

Conclusion: Women with perinatal mental health diagnoses incurred significantly greater hospital costs than women without any mental health diagnosis. Lack of private insurance and unmarried status was associated with increased costs.

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Evaluation of a Pregnancy After Loss Clinic: Transitioning to motherhood following previous perinatal loss

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Objectives/Background

The Mater Mothers' Pregnancy After Loss Clinic (PALC) was developed in Brisbane, Australia, as a specialised hospital-based service to support women in a subsequent pregnancy following previous perinatal loss. There is a paucity of research evaluating such services and the journey from subsequent pregnancy to birth from the perspective of the mothers. The aim of this research is to address this need.

Methods

Semi-structured interviews were conducted with ten mothers with a history of perinatal loss, who had attended the PALC, and had since given birth to a healthy baby. These women were in a relationship, aged 22 to 39 years, primiparous or multiparous, and from a range of cultural and socio-economic backgrounds. The interviews were transcribed verbatim and thematically analysed by two researchers who were not involved in the data gathering process.

Results

Seven themes were identified from the interview material, including: The overall experience, The unique experience of first pregnancy after loss, Support from PALC, Experiences of other services, Recommendations for PALC services, Need for appropriate alternative services, and Advice: mother to mother.

Conclusion/Discussion

Participants spoke extremely highly of the PALC services for themselves and their families. Anxieties over their subsequent pregnancy and the desire for other health professionals to be more understanding were frequently raised. Recommendations were made to extend the PALC service and to develop similar services to support access for other families experiencing perinatal loss.

Three key words

Perinatal loss, service evaluation, pregnancy.

References

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2016 International Marce Society Conference Abstract. *Frontiers in Perinatal Mental Health-looking to the future.* Melbourne September 26-28, 2016

e-PIMH: A Perinatal and Infant Mental Health Workforce Development Pilot

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Oral Presentation - <u>Implementation and Policy</u>

Objective/Background:
The e-PIMH project uses a combination of telehealth and outreach to support the mental health of mothers, fathers, infants and families in rural and remote areas of Queensland. eCYMHS (Child and Youth Mental Health) is a service whose effectiveness has been demonstrated (Levy & Strachan 2013; Wood et al 2012). e-PIMH aims to implement a similar model for perinatal mental health and infant mental health in rural and remote areas. The project seeks to develop awareness, knowledge and skills among healthcare professionals and other workers in rural and remote communities, to identify perinatal and infant mental health issues early, intervene effectively, and refer appropriately (Ducat et al 2014; Starling et al 2003).

Methods
The pilot takes an innovative cross-sectoral approach, strengthening relationships among public, private and non-government providers of health and education services, including Indigenous organisations. It uses face-to-face, telephone, email and video conferencing to support the existing workforce in practical ways with tailored advice, provision of resources, training and education. Furthermore, it aims to foster local connections, networks and referral pathways.

Discussion
The discussion will focus on the development and implementation of the pilot, and early learnings.

Key words: Rural and Remote Pilot

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TITLE:
SCREENING FOR PERINATAL ANXIETY DISORDERS: AN IMPLEMENTATION TRIAL.

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ABSTRACT:
Objectives/Background: A trial implementation of the Perinatal Anxiety Screening Scale (PASS) alongside established EPDS screening in antenatal clinics of a major tertiary obstetric hospital was conducted to investigate:

1. Outcomes for effectiveness of screening and subsequent pathways to care for perinatal women with problematic anxiety
2. Satisfaction and value for midwives who conduct screening

The Perinatal Anxiety Screening Scale (PASS) was developed as a self-administered tool to effectively screen for anxiety disorders in perinatal women given increasing awareness of anxiety as a significant mental health issue distinct from postnatal depression. (Somerville et al 2014, 2015). The initial validation study on the 31 item scale revealed an optimal clinical cut off score which effectively improved screening for perinatal anxiety disorders from 33% using the EPDS to 68% using the PASS. Acceptability and ease of completion ratings were high for women completing the PASS.

Methods: Women (N=150) attending for antenatal obstetric care at a range of clinics including high risk and routine, completed the PASS alongside the EPDS screen during routine antenatal visits. Medical chart audits were used to track patient journeys including; referrals for mental health services informed by PASS screening, triage records showing appropriate referrals using the PASS, patients referred via a PASS screen who attended for assessment and engaged in treatment, mental health outcomes. Registered Quality Improvement projects (GEKO) were used to record this data and midwives responses and satisfaction regarding using the PASS screen.

Results: Preliminary findings for the patient journey post screening and midwives feedback quality improvement audits will be presented as well as procedures, set-backs and lessons learned from the process of setting up a trial implementation screening project.

Conclusions: While the PASS has the capacity to improve the effectiveness and scope of perinatal mental health screening, positive outcomes for women will only be realized when screening can be effectively implemented in relevant settings and there are pathways for referrals to accessible care. Resourcing and organizational pressures plus resistance to change require significant negotiation for this to be successful.

3 Key words: anxiety, screening, implementation

References:

- Susanne Somerville, Kellie Dedman, Rosemary Hagan, Elizabeth Oxnam, Michelle Wettinger, Shannon Byrne, Soledad Coo, Dorota Doherty, Andrew Page · **The Perinatal Anxiety Screening Scale: Development and Preliminary Validation**. *Archives of Women's Mental Health*: Volume 17, Issue 5 (2014), Page 443-454**.** *doi: 10.1007/s00737-014-0425-8.*

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Prevalence and determinants of persistent depressive symptoms during pregnancy

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Abstract

Background

A recent JAMA review of O'Connor et al. (2016) advocated to screen pregnant and postpartum women for depression(1). However, an important issue that was not mentioned refers to the question what a single elevated depression score means: does it represent just one episode or do these symptoms persist throughout pregnancy? This study assesses depressive symptoms at each trimester and evaluated whether women with different patterns of depressive symptoms show other characteristics.

Methods

A cohort of 1,813 pregnant women from the HAPPY (Holistic Approach to Pregnancy and the first Postpartum Year) study(2) completed the Edinburgh Depression Scale (EDS) at 12, 22 and 32 weeks gestation to assess depressive symptomatology throughout pregnancy.

Results

This study shows that 26% of the pregnant women reported depressive symptoms at least once during gestation, with trimester specific prevalence from 10%-15%. Up to 4% of the women report persistent depressive symptoms at all trimesters and 58% of these women report a previous history of mental health problems. According to the frequency of high EDS scores, different determinants were associated with depression. Incidentally elevated depressive symptoms were predicted by life events, while persistent symptoms were predicted by unplanned pregnancy and multiparity. Up to 83% of the women with persistent depression during pregnancy can be identified at 12 weeks gestation, using a set of four determinants (high EDS score, previous history of mental health problems, unplanned pregnancy, and multiparity.

Conclusion

Different patterns of depressive symptomatology can be discriminated, with incidentally elevated depression scores showing other determinants than persistent depressive symptoms. An EDS assessment with three additional questions at early pregnancy enabled us to identify most of the women with persistent depression. A primary care depression screening strategy in pregnant women should take into account possible chronicity of depressive symptoms in order to offer intervention to the most vulnerable women.

Key words: depression, EDS, screening

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No financial support

Screening for perinatal depression: when and how often?

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Abstract

Background

Recently, the US Preventive Task Forces(1) advocated perinatal depression screening. However, we question whether assessing depressive symptoms once will detect the group of women who are most vulnerable to postpartum depression (PPD). We explored the relation between single or recurrent depression sores during screening and development of single or persistent PPD.

Methods

The HAPPY study(2) included 2,275 healthy women (exclusion of those with known mental problems) in whom depressive symptoms were screened using the EPDS at 12, 22 and 32 weeks pregnancy (EDS cut-off ≥10), and at 6 weeks, 4, 8, and 12 months postpartum to detect PPD (EPDS cut-off ≥13).

Results

At least once an elevated score was found in 231 (23%) women during screening (pregnancy), while during follow-up postnatally 163 (16%) women developed PPD. Of the 231 women with ≥1 elevated score during screening, 63% developed PPD. In total, 3% developed persistent PPD (≥3x). One EDS assessment during gestation detected 16-22% of the women with ≥1 PPD and 18-43% of those with recurrent PPD. Screening at all trimesters detected 40% of women with ≥1 PPD, and up to 57% with persistent PPD. When adding to an elevated EDS score the questions: previous history of depression, unplanned pregnancy and multiparity, we detected 85% of the women who developed PPD.

Conclusion

Up to 3% of healthy pregnant women develop persistent PPD. Although there is evidence for benefit of depression screening and treatment of pregnant women, it should be realized *when* and *how often* to screen. Single assessment during pregnancy detects less than half of the women with persistent PPD, while assessments at all trimesters detect 57% which can be increased substantially by adding three additional determinants to the risk set. Screening should focus on women at risk for persistent PPD as this is the highly vulnerable group.

Key words: depression, EPDS, screening

References:

1. O'Connor E, Rossom RC, Henninger M, Groom HC, Burda BU. Primary Care Screening for and Treatment of Depression in Pregnant and Postpartum Women. Evidence report and systematic review for the US Preventive Services Task Force. *JAMA*. 2016;315(4):388-406.

2. Truijens SEM, Meems M, Kuppens SMI, Broeren MAC, Nabbe KCAM, Wijnen HA, Oei SG, Van Son MJM, Pop VJM. The HAPPY study (Holistic Approach to Pregnancy and the first Postpartum Year): design of a large prospective cohort study. *BMC Pregnancy Childbirth.* 2014;14:312.

No financial support

Assessing Obsessive Compulsive Personality Disorder (OCPD) symptoms during pregnancy.

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Word count: 298

BACKGROUND:
Until now, research into a possible role of personality traits such as perfectionism and obsessive compulsive personality disorder (OCPD) on pregnancy distress is scarce, possibly because no instruments for use during pregnancy are available. The current study developed self-rating instruments to assess OCPD symptoms (including perfectionism) during gestation and evaluated the relation between high scores on these scales and (recurrent) depression.

METHODS:
In a large unselected sample of 1,095 pregnant women(1), the Clinical Perfectionism Scale was adapted and modified into a 15-item perfectionism scale. Moreover, 10 questions of the SCID OCPD structural interview were modified into another self-rating scale. The sample was randomly split into two equal subsamples: group I was used for reliability and Explorative Factor Analysis (EFA), group II for Confirmative Factor Analysis (CFA). The Edinburgh Depression Scale (EDS), completed at 12, 22 and 32 weeks gestation was used to assess concurrent and discriminant validity.

RESULTS:
A 7-item perfectionism (Eigen value: 3.6, 52% explained variance) and a 7-item OCPD (Eigen value: 3, 40% explained variance) symptom check list remained with good psychometric properties: Cronbach's alpha of 0.85 and 0.78, respectively and good model fit in the CFA: CFI: 0.96, NFI: 0.95, TLI: 0.97, and RMSEA: 0.05, with lower bound: 0.04, and CFI: 0.97, NFI: 0.97, TLI: 0.98, and RMSEA: 0.05 with lower bound: 0.03, respectively. Both scales correlated significantly with EDS scores at different trimesters (r: 0.32-0.43). Women with high scores on these scales (defined as a score of >1 SD> mean) reported significantly more often single and recurrent episodes of depression during gestation and a previous history of depression earlier in life.

CONCLUSIONS:
Self-rating scales that assess OCPD trait symptoms are capable to detect women at risk for (recurrent) depression during pregnancy. A limitation is that no structural psychiatric interview was performed to further validate the questionnaires.

KEYWORDS:
OCPD; Perfectionism; construct validation; pregnancy; depression

References:

1. Truijens SEM, Meems M, Kuppens SMI, Broeren MAC, Nabbe KCAM, Wijnen HA, Oei SG, Van Son MJM, Pop VJM. The HAPPY study (Holistic Approach to Pregnancy and the first Postpartum Year): design of a large prospective cohort study. *BMC Pregnancy Childbirth.* 2014;14:312.
2.

"To hold" and "To be held": Clinicians perceptions and experiences of working in a specialist perinatal and infant mental health service

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Background

Maternal social and emotional distress in pregnancy can have negative consequences for the unborn infant. Positive mother-infant interactions and the attachment relationship are crucial for an infant to develop optimal social and emotional health and wellbeing. With growing evidence linking women's wellbeing during the perinatal period to infant wellbeing, the *Supporting Families Early Policy* was developed in NSW, Australia. This policy refers to the identification and early intervention for women at risk for poor perinatal mental health. In some health areas specialist perinatal and infant mental health (PIMH) services have been developed. These services consist of multidisciplinary teams of nurses, midwives, psychologists, social workers and psychiatrists. The study aimed to examine and describe the work and perceptions of PIMH clinicians in NSW as well as the experiences of women who engage in the PIMH service.

Methods

A convergent embedded mixed methods study was conducted. Data collection included: reviewing 244 medical records, transcriptions of textual data, interviews with 13 professionals (6 PIMH clinicians, 2 PIMH managers and 5 key stakeholders) and interviews with 11 women service-users. This presentation will focus on the thematic analysis of the interviews with the PIMH clinicians.

Results

The majority of the women referred to the PIMH service had multiple and complex needs. Two main themes emerged from the clinicians' data. The first theme: "To hold" - describes how the clinician's perceive their main therapeutic intervention, based on Attachment Theory. The second theme: "To be held" - describes the support that the clinicians need to work therapeutically with vulnerable women and their families during the perinatal period.

Conclusion

PIMH clinicians draw upon Attachment Theory to model the concept of being held and being a secure-base for women to take and then replicate for their infants. A model of Attachment Theory can also support PIMH clinicians in their work with women and families in the perinatal period.

3 Key words

Perinatal and infant mental health services, qualitative research, clinicians' experiences, women

References (minimum of 2)

Guedeney, A., Guedeney, N., Tereno, S., Dugravier, R., Greacen, T., Welniarz, B. *et al.* (2011). Infant rhythms versus parental time: Promoting parent–infant synchrony. *Journal of Physiology - Paris, 105:* 195–200. DOI: 10.1016/j.jphysparis.2011.07.005

Hammonds, M. (2012). Linking early healthy attachment with long-term mental health. *Kai Tiaki Nursing New Zealand, 18*(2), 12-14.

Rutten, B.P.F., Hammels, C., Geschwind, N., Menne-Lothmann, C., Pishva, E., K. Schruers, K. *et al.* (2013). Resilience in mental health: Linking psychological and neurobiological perspectives. *Acta Psychiatrica Scandinavica, 128*: 3–20. DOI: 10.1111/acps.12095

A cross-sectional study comparing the Whooley questions and Edinburgh postnatal depression scale against a diagnostic assessment in identifying depression in pregnancy

Authors:
Elizabeth Ryan, Kylee Trevillion and Louise Howard on behalf of the ESMI team.

Objectives/Background:
Antenatal mental disorders are often unrecognized, despite frequent contact with healthcare professionals throughout pregnancy. The UK National Institute for Clinical Excellence recommends maternity professionals use the two Whooley questions (Arroll et al., 2003) to identify depressive disorders – the most common antenatal mental disorder - in the perinatal period. However, it is not clear whether these questions are the optimal method to do this. The Edinburgh Postnatal Depression Scale (EPDS (Cox et al., 1981)) is an alternative measure which has been used extensively in primary care for detection of depression in the perinatal period.

Methods:
This study aims to investigate the sensitivity, specificity and positive predictive value of the two Whooley questions compared with the EPDS, and a gold standard diagnostic interview (The Structured Clinical Interview DSM-IV), for the identification of depression at antenatal booking.

Results:
We will ascertain the rates of “true” and “false” Whooley and EPDS positives and “true” and “false” negatives. We assume an overall prevalence of 9% depression and Whooley sensitivity of 0.95 and specificity of 0.89. Sampling 600 Whooley positive and Whooley negative women, we expect 185 to be identified as depressed. Assuming a sensitivity of 0.80 and specificity of 0.71, the width of the 95% CI for the EPDS sensitivity will be 0.19 and that for specificity 0.13. A conservative estimate of power based on the 185 disease cases only, has >90% power for a 0.8 v 0.65 sensitivity and specificity difference (comparing Whooley and the EPDS).

Conclusion/Discussion:
Detection of mental disorders in pregnancy, particularly in the first trimester, is of high importance as antenatal mental disorders are commonly untreated. It is important to establish which tools are most useful for potential case identification

Key words:

Antenatal; Depression; Sensitivity and Specificity

References:

Arroll B, Khin N, Kerse N. Two verbally asked questions are simple and valid. Brit Med J. 2003;327:1144-6.

Arroll B, Goodyear-Smith F, Kerse N, Fishman T, Gunn J. Effect of the addition of a "help" question to two screening questions on specificity for diagnosis of depression in general practice: diagnostic validity study. Brit Med J. 2005;331(7521):884.

Financial supports: This abstract summarises independent research funded by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research (PGfAR) Programme (Grant Reference Number: RP-PG-1210-12002). The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health. The National Institute for Health Research funds the Chief Investigator, Louise M Howard, through a NIHR Research Professorship (NIHR-RP-R3-12-011). The King's Clinical Trials Unit provides statistical support, randomisation, and databases. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.

Effects and consequences for mother and child from treatment for depression. A randomize controlled trial with internet-based cognitive behaviour therapy and sertraline or placebo

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Background: Depression is common in pregnant women, approximately 5 % need treatment, usually with selective serotonin reuptake inhibitors (SSRI). Increased risks for preterm birth and neonatal complications in the children are reported. Data on long-term effects on cognitive development in the children are contradictory. Internet-based CBT (I-CBT) is an efficient treatment option for depression. There are no studies on I-CBT treatment in pregnant women.

Aims: To study:

- neonatal effects and long-term outcome in children exposed to SSRI treatment during fetal life
- Effects of a combined treatment with SSRI or placebo and I-CBT in pregnant women with depression (mental status, obstetrical complications, haemorrhage).
- Attachment parents and child

Methods: Two-hundred women recruited from maternal antenatal health clinics in early pregnancy fulfilling the criteria of a moderately severe depression will receive I-CBT and at the same time be randomized to add-on therapy with sertraline (n=100) or placebo (n=100). The children (n=200) will be assessed for neonatal neurological signs and complications and at 3m of age, for cognitive development at 2 years and 6 years of age. Questionnaires on child behaviour, maternal attachment and psycho-social situation are evaluated at each follow-up.

Results: Preliminary results will be presented

Conclusion: The challenges and pitfalls of conducting an interdisciplinary study will be discussed.

References: Oberlander 2012, Fetal serotonine signalling: setting pathways for early childhood development and behaviour Journal of Adolescent Health.

Lester et al, Epigenetic basis for the development of depression in children, Clin Obstet Gynecol 2013.

Observations from an interviewer-administered format of EPDS in a low literacy population from India

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Abstract

Background: The Edinburgh Postnatal Depression scale has been used in diverse formats among pregnant women in varied settings and countries. The aim of the current enquiry is to examine how pregnant women from a low literacy population in urban India endorsed items on a translated version of the Edinburgh Postnatal Depression Scale (EPDS) in an interviewer administered format.

Methods: As part of an ongoing cohort study of mothers in the perinatal period – the PRospective Assessment of Maternal Mental health Study (PRAMMS), 632 women were interviewed at a community antenatal clinic in Bangalore and evaluated for depression using the Kannada version of the EPDS with the items and response options being read out by trained interviewers. A cut-off score ≥ 11 was considered for the purpose of analysis.

Results: Overall 7.6% (48/632) of women were identified to have depression on the scale ($\bar{x}$=2.27, SD 5.01). A significant 428/632 women (67.7%) did not endorse any of the items. Among those who endorsed any symptom ($\bar{x}$=7.04, SD 6.66), item 6 (*things getting on top of me*) was reported the most (108/204, 52.9%). Women with depression had a higher probability of endorsing items 8 (sad or miserable), 9 (*crying*) and 1(*laugh & see the funny side*), while women who did not reach the cut-off more often endorsed the anxiety items - 3 (*blamed myself)*, 4 (*anxious or worried)* & 5 (*scared or panicky)*.

Conclusion: These findings highlight the need for reconsidering the interpretation of the EPDS to include individual symptom ratings rather than only considering a cut-off while screening for depression and anxiety in different populations.

Keywords: Screening, pregnancy, India, depression, anxiety

Introduction. The Young Parenthood Program (YPP; Florsheim, 2014) is an innovative co-parenting counseling program for young pregnant women and their partners, designed to promote healthy interpersonal skills and positive co-parenting behavior. YPP is flexible enough to accommodate social, cultural and circumstantial differences among couples but structured enough to ensure focus and support fidelity. Counselors facilitate the development of interpersonal skills by working with couples through five phases: (1) Introduction-engagement, (2) relationship goal-setting, (3) interpersonal skill-building (reflective listening, acceptance, stress management, healthy expressing, etc.), (4) role transitions and (5) post-birth check-up and booster sessions. Although the intervention is "couples-focused," the skills learned are intended to increase cooperation, stability and security regardless of whether the parents remain together romantically.

Objectives. The presenter will: (1) describe theory and review research evidence supporting YPP (Florsheim et al, 2012); (2) provide an overview of YPP phases and specific skills taught by YPP counselors, using case examples and role play to illustrate key issues; (3) discuss adaptations for young parents in different cultural and social contexts: and (4) encourage workshop participants to provide examples of past patients that might have benefitted from an interpersonal skill-building program such as YPP.

Outcomes: Workshop participants will: (1) Receive research-based knowledge about how the co-parenting relationship is relevant to the mental health of young mothers and fathers; (2) Learn strategies for motivating fathers to participate in perinatal psychosocial interventions. (3) Obtain tools for promoting healthy relationships among young parents.

References:

Florsheim, P., Burrow-Sanchez, J., Minami, T., Heavin, S., McArthur, L., & Hudak, C. (2012). The Young Parenthood Program: A randomized trial of a counseling program for pregnant adolescents and their co-parenting partners. American Journal of Public Health, 102, 1886-1892.

Florsheim, P. (2014). The Young Parenthood Program: Guide to Helping Young Mothers and Fathers Become Effective Co-Parents. Oxford University Press.

Key words: Fathers, Couples, Prevention/Health Promotion

Presenter: Dr. Florsheim is clinical psychologist and professor of public health at the Joseph Zilber School of Public Health at the University of Wisconsin Milwaukee.

Relapse of serious mental illness in the perinatal period: a historical cohort study using clinical records.

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Biography: Clare Taylor is a PhD student in her final year using electronic health records to conduct an epidemiological cohort study looking at pregnant women with a history of serious mental illness. She has a BSc in Human Sciences, Graduate Diploma in Psychology and MSc in Public Health Nutrition from London School of Hygiene and Tropical Medicine and a background working with adolescents in mental health.

Background/ Objectives: Relapse of SMI in the perinatal period could have devastating consequences for a mother and her baby. We investigated risk and predictors of relapse in pregnancy and investigate the risk of relapse in 3 months postpartum in women with SMI in contact with secondary mental health care.

Methods: historical cohort study using anonymised mental healthcare data from the South London and Maudsley NIHR Biomedical Research Centre Clinical Record Interactive Search (CRIS) system and linkage with UK national Hospital Episode Statistics. *Study population:* Women with a history of SMI pregnant 2007-2011. *Outcome:* inpatient admission or intensive home treatment during pregnancy or 3 months postpartum. *Measures:* sociodemographics, exposure to psychotropic medication, diagnosis, acute care in 2 years before pregnancy, smoking and substance use.

Results: Of 454 pregnancies 83 (18.3%) had a relapse during pregnancy. Independent predictors of relapse included non-affective psychosis, number of admissions and self-harm in the two years before pregnancy, smoking and being on no medication at the start of the first trimester. Of 363 remaining pregnancies without relapse during pregnancy, 86 (23.7%) relapsed in the 3 months postpartum. Exposure to regular medication in 3rd trimester did not appear protective against relapse postpartum.

Conclusion: This research adds to the limited evidence on relapse of SMI in the perinatal period. Naturalistic studies using electronic records will provide important data to inform clinicians on management of pregnant women with SMI.

Key words: Pregnancy, Serious mental illness, relapse

References:

1. Stewart, R., et al., *The South London and Maudsley NHS foundation trust biomedical research centre (SLAM BRC) case register: development and descriptive data.* BMC Psychiatry, 2009. **9**(1): p. 51.
2. Viguera, A.C., et al., *Risk of recurrence in women with bipolar disorder during pregnancy: prospective study of mood stabilizer discontinuation.* American Journal of Psychiatry, 2007. **164**(12): p. 1817-24;

Maternal depression related to prenatal work stress and its consequences regarding birth outcome

Presenter:
Julia Hunold [a] (j.hunold@psychologie.uzh.ch)
Biography
PhD student in Clinical Psychology at the University of Zürich.
Research interests: Psychobiological adaptation to naturally occurring stress during pregnancy.

Co-Authors:
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[b]Department of Obstetrics, University Hospital Zürich, Switzerland

Background: Work stress is assumed to contribute to elevated stress levels during pregnancy[1]. The risk for premature delivery and lower birth weight seems to be increased by this factor[2]. Little research can be found about maternal depression related to work stress during pregnancy and child development.

Methods: Within a longitudinal study starting in the early pregnancy, 100 singleton women (M=31.5±4.1 years) were recruited. Prenatal work stress, depressive values and birth outcome were analysed.

Results: The analysis has shown an association between work stress and depressive values during the first trimester (β=.239, p=.017). Further, work stress in the first trimester has been shown to be associated with pregnancy related stress in the third trimester (β=.278, p=.02). Birth outcome correlated negatively with maternal work related stress as well as depressive values.

Discussion: Work stress seems to influence depressive and pregnancy related stress values of pregnant women, which may lead to aversive birth outcomes.

Keywords: prenatal work stress, maternal depression, birth outcome

References:
[1] Field, T., Hernandez-Reif, M., Diego, M., Figueiredo, B., Schanberg, S., & Kuhn, C. (2006). Prenatal cortisol, prematurity and low birth weight. *Infant Behavior and Development*, *29*(2), 268-275.
[2] Armstrong, B. G., Nolin, A. D., & McDonald, A. D. (1989). Work in pregnancy and birth weight for gestational age. *British journal of industrial medicine*, *46*(3), 196-199.

Financial support: Swiss National Science Foundation

ABSTRACT for Marce 2016 - Symposium

Category: E- mental health, telephone and self-help assessments and treatments

Title of symposium: New technologies and methodologies in perinatal mental health research

Title: Strategies for recruiting and preventing drop-out of women with complex needs across the Effectiveness of services for Mothers with Mental Illness (ESMI) programme

Authors: Selina Nath[1], Kylee Trevillion[1], Emma Molyneaux[1], Frances Butcher[1], Stacey Jennings[1], Rebekah Shallcross[1], Sian Koskela[1], Sarah Byford[1], Andrew Pickles[1], Elizabeth Ryan[1], Louise M Howard (Chief Investigator)[1], on behalf of the ESMI team.
Affiliations: Institute of Psychiatry, Psychology and Neuroscience, King's College London[1]
Corresponding author contact details:
Selina Nath: selina.nath@kcl.ac.uk

Objectives/Background: To explore methods of retention of women with perinatal mental disorders. It is important to recruit and follow-up women with complex needs for cohort studies to ensure representativeness and precision in estimates.

Method: Two of the studies in the ESMI programme are cohort studies: 1) Well-being in PregnancY in an inner city maternity service (WENDY) is a cohort study of 600 women recruited soon after their antenatal booking followed-up through to 3 months postpartum; 2) The Effectiveness and cost-effectivenesS of Mother and Baby Units versus general psychiatric Inpatient wards and Crisis Resolution Team services (ESMI) is an quasi-experimental national observational cohort study recruiting women with severe mental disorders that need intensive treatment urgently following birth. Both studies consist of women with complex needs that can be challenging to recruit and follow-up.

Results: We have developed effective strategies across both cohort studies to ensure that we recruit and successfully follow-up women with more complex needs. The WENDY study is achieving a high follow-up rate with an average of 90% (28 weeks gestation) and 87.5% (3 month postnatal), including a high proportion of migrant women. Retention strategies include using interpreters, multiple contact details, use of specialist professionals for women who are asylum seekers dispersed out of London, text reminders and option of short telephone interviews at follow-up. The national Mother and Baby Units study uses telephone and electronic case note methods for follow-up.

Conclusion/Discussion: High follow up rates are possible if resources are available to implement strategies that ensure no loss to follow up of women with complex needs.

References:

Howe et al. (2013).Loss to follow-up in cohort studies: bias in estimates of socio-economic inequalities. Epidemiology,24,1-9.
Bracken et al. (2013).New models for large prospective studies: is there a risk of throwing out the baby with the bathwater? American Journal of Epidemiology,177,285-289

(Word count max 300 including references: currently 300)

Financial supports: This abstract summarises independent research funded by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research Programme (Grant Reference Number RP-PG-1210-12002). The National Institute for Health Research funds the Chief

Investigator, Louise M Howard, through a NIHR Research Professorship (NIHR-RP-R3-12-011). The King's Clinical Trials Unit provides statistical support, randomisation, and databases. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.

Migration and perinatal mental disorders: A systematic review & meta-analysis, and findings from the WENDY study

Fraser Anderson[1], Carla Comacchio[2], Stephani Hatch[3], Louise Howard[1]

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Category:

Hot topics - Screening

Key words:

Migration; Antenatal Depression; Antenatal Anxiety

Objectives/Background:

There has been little research investigating mental disorders during the perinatal period among migrant women, despite some evidence of increased risk and adverse outcomes for both mother and child. This PhD work aims to evaluate the prevalence and risk of mental disorders in the perinatal period among first-generation migrant women.

Methods:

A systematic review was conducted to assess the prevalence and risk of perinatal mental disorders among migrant women. Six databases were searched, in addition to citation tracking, for peer-reviewed articles assessing mental disorders among migrant women, during pregnancy and up to one year postpartum.

The WENDY study, in which around half of women are born outside the UK, is assessing the prevalence of mental disorders at antenatal booking in an inner-city maternity service in London. The SCID is used to assess mental disorder, and there are no exclusions based on language. The baseline data will be used to look at the prevalence and risk of mood and anxiety disorders (including PTSD) among migrant women.

Results:

Of the 3241 abstracts screened, 53 studies met inclusion criteria for the review. Only 3 studies investigated a mental disorder other than depression, only 1 study used a diagnostic measure of mental disorder. There were high levels of selection bias, with many studies excluding women who didn't speak the study country language. The meta-analysis suggests that the risk for antenatal and postnatal depression differs by study country.

Results from the WENDY data will be presented at the conference.

Conclusion/Discussion:

The WENDY data will provide the first high quality evidence on migration and mood and anxiety disorders in pregnancy.

References:

Rechel et al. Migration and health in an increasingly diverse Europe. Lancet. 2013;381:1235-45.

Collins et al. Refugee, asylum seeker, immigrant women and postnatal depression: rates and risk factors. Archives of Women's Mental Health. 2011;14(1):3-11.

DISCLOSURES All submitters will be required to respond to four disclosure questions:

- **Please list any financial supports**

This abstract summarises independent research funded by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research (PGfAR) Programme (Grant Reference Number: RP-PG-1210-12002). The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health

- **Are you aware of any conflict of interest? If yes, please explain.**

No

- **The submitter may leave a short message, if they wish, about their abstract or the results represented.**

N/A

• **Should the presentation be accepted, does the presenter require an invitation / acceptance letter to support any visa applications? PERMISSIONS All submitters will be required to respond to two permission questions:**

No invitation required.

• **Do you consent for your abstract being made available to conference delegates and published as proceedings?**

Yes

• **Do you consent to a copy of your PowerPoint presentation being made available to delegates?**

Yes

Title of Symposium

Common mental health problems at antenatal booking and acceptability of depression screening

Chairperson summary

We are delighted to present new data from a large perinatal research programme funded by the National Institute for Health Research in England. We will present results from a number of linked studies which aim to investigate: (1) the prevalence of mental disorders, across the diagnostic spectrum, among women attending antenatal bookings in a large inner city maternity service; (2) the most effective screening method for identifying mental disorders by midwives in maternity services; (3) the acceptability of routine enquiry for depression in an inner city maternity service where almost half of all women are migrants, and (4) the evidence on migration and perinatal mental health problems.

Speakers: Professor Louise M. Howard; Dr Elizabeth Ryan; Dr Kylee Trevillion; Fraser Anderson

Chair: Professor Louise M. Howard

A qualitative study of women's views and experiences of depression screening in pregnancy

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Key words:

Antenatal Depression; Screening; Acceptability

Objectives/Background

In NHS maternity services in England, midwives ask all women two depression screening questions, the Whooley questions, at their antenatal booking appointment. We aimed to explore women's views and opinions of about being asked the Whooley questions.

Methods:

Women who were asked the two Whooley items at their antenatal booking appointment at King's College Hospital were invited to take part in a qualitative study. To facilitate discussion, researchers asked questions such as "What was it like for you answering the questions about your mood?", "Were there any questions you found upsetting, distressing or confronting?" and "Did the midwife give you some feedback about your answers?" Interviews were audio recorded and transcribed verbatim. A purposive sample of the narratives of 51 women were analysed using content and thematic frameworks.

Results:

Interviews of 51 women (mean age 32.7 years, SD 7) with varying socio-demographic backgrounds, mental health diagnoses and parity were analysed. Overall, most women found it acceptable to be

asked about their mental health well-being at the booking appointment but some found it confronting. Three major themes emerged - the importance of being asked about depression in pregnancy, the context and way in which the screening questions are administered and fear of disclosure.

Conclusion/Discussion:

Case finding with Whooley questions at antenatal booking is acceptable to the majority of women, who identify these issues as relevant in pregnancy. Rates of disclosure could be improved through the provision of training for clinical staff in challenging stigma and facilitating discussions about sources of support.

References:

Gavin NI, Gaynes BN, Lohr KN et al Perinatal depression: a systematic review of prevalence and incidence. Obstet Gynecol. 2005;106(5):1071-83.

Leigh B, Milgrom J. Acceptability of antenatal screening for depression in routine antenatal care. Aust J Adv Nurs 2007;24:14–8

BACKGROUND: Childbirth is associated with substantial psychiatric morbidity, and conversely, severe mental illness is associated with poorer obstetric outcomes. Perinatal mental health services aim at preventing, detecting and treating perinatal psychiatric illness, and are best placed to work collaboratively with obstetric teams.

METHODS: We have designed and implemented a model of joint assessment and treatment following a detailed protocol, from booking up to the sixth postnatal week, to manage women at high risk of psychiatric relapse in the puerperium. Care is consultant led, with regular multidisciplinary assessments of patients and regular physical monitoring, which will vary according to their treatment plan. All patients receive thorough information on the risks and benefits of medication in pregnancy and breastfeeding. We devise a clear management plan during pregnancy, peripartum and postpartum, including a multidisciplinary meeting at 32 weeks to finalise the peripartum plan, this period being the most prone to both psychiatric and obstetric complications. We have audited our outcomes and compared them to data on a similar population collected prior to the existence of the clinic.

RESULTS: We have significantly reduced the obstetric bed occupancy, adverse obstetric outcomes, and significantly improved patient compliance and attendance, improved quality of provision of information care planning, and maternal ambivalence or feelings of estrangement towards the foetus, CONCLUSIONS: with this care model we can put in place early obstetric, psychiatric and psychotherapeutic intervention that would otherwise be delayed. We have received positive feedback from patients and other professionals.

Key words: joint working, Psychiatric risk, outcomes

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Sleep Disturbance in Mothers with Unsettled Infants: Clinical Features and Correlates

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a. Joint first author: these two individuals contributed equally.

Objectives/Background

Sleep disturbance is virtually ubiquitous among postpartum women[1], and is particularly significant in mothers with unsettled infants. Poor sleep[2], including symptoms of insomnia[3], are linked to greater impairment in daytime functioning and mood disturbances in healthy perinatal women, but these associations are poorly understood in mothers with significant sleep disturbance. This study aims to characterize clinical features of sleep disturbance and their mental health correlates in mothers with unsettled infants.

Methods

This is a cross-sectional study on 167 mothers who attended a residential program for unsettled infants. Participants completed questionnaires assessing the following domains before commencing the program: sleep quality (Pittsburgh Sleep Questionnaire Index), symptoms of insomnia (Insomnia Severity Index), symptoms of depression and anxiety (Depression and Anxiety Symptom Scale), and daytime functioning (Epworth Sleepiness Scale, Karolinska Sleepiness Scale, and Fatigue Severity Scale).

Results

Mothers reported significantly poorer sleep compared to healthy postpartum women, with about half reporting clinically significant insomnia symptoms. Regression analyses controlling for maternal and infant age, and prior psychiatric disorders showed that: (a) self-reported poor sleep (i.e., sleep duration, onset latency, disturbance, efficiency, quality) and impaired daytime functioning (i.e., fatigue, sleepiness) were associated with significantly higher depression and anxiety symptoms; (b) symptoms of depression and anxiety were indirectly influenced by sleep through its consequences on daytime functioning; (c) mothers with clinically significant insomnia symptoms reported significantly worse sleep quality, higher fatigue, and higher symptoms of depression and anxiety compared to those without.

Conclusion/Discussion

Mothers with unsettled infants experience significant sleep disturbance, and might be at risk for clinically significant insomnia symptoms. Our findings highlighted sleep and its daytime consequences as potential modifiable risk factors for postpartum mood disturbance. Identifying and addressing sleep problems during the postpartum period, especially in mothers with unsettled infants, might lead to better maternal sleep and psychological well-being.

Key words: sleep, postpartum, mood

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Objectives/Background. Family instability has increased dramatically over the last 40 years, leading to higher rates of children growing up in single parent households. The trend toward unwed childbirth and relationship dissolution has been particularly pronounced among young, ethnic minority couples. The primary objective of this presentation is to describe the efficacy of a co-parenting counseling program designed to support the interpersonal development of young expectant parents at risk for relationship problems, including intimate partner violence (IPV; Florsheim, 2014). The study described expands on previous work demonstrating the positive effects of YPP on young fathers (Florsheim et al., 2012). In the current study, it was expected that YPP-enrolled fathers would demonstrate improvements in their relationship skills and their partners would report lower rates of IPV and depression at 6 and 18-months post-childbirth.

Methods. 140 couples were recruited to participate in a randomized control trial of YPP. Interpersonal skills were measured using video-recorded interaction data collected prenatally and at 6 months post birth and coded using a validated interpersonal coding scheme. Follow up data on relationship violence and depression were collected at 6 and 18-months post-birth.

Results. Fathers in YPP were observed to engage in less hostile communications compared to control group fathers. Couples in YPP were also less likely to report IPV at the 18-month follow-up. Decreased interpersonal hostility was associated with decreased rates of depression.

Conclusion/Discussion. This study demonstrates the utility of including young fathers in prenatal care and providing expectant couples with relationship-focused counseling.

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Title: Is routine psychosocial assessment acceptable and feasible in a private, regional maternity setting? An audit of the St John of God Ballarat experience.

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Key words: screening, pregnancy, depression

Abstract

Background

Since the inception of the Australian National Perinatal Depression Initiative (2008) and Clinical Guidelines (2011), routine psychosocial assessment has been increasingly adopted. Access to such assessment (especially in pregnancy) for the third of women who deliver privately and those living in regional Australia (20%), is very limited because of health service barriers in those settings. There is an urgent need to establish the feasibility and acceptability of undertaking routine psychosocial assessment in private & regional maternity sectors.

Method:

St John of God Hospital, Ballarat introduced psychosocial screening, as a part of routine maternity care, using two scales - the Antenatal Risk Questionnaire (ANRQ) and Edinburgh Postnatal Depression Scale (EPDS). This retrospective case file audit reports on the psychosocial profile of women attending this setting; and assesses user (clinician and consumer) acceptability & feasibility (clinician).

Results: Sociodemographic and clinical data is currently being analysed and full results will be presented on around 500women. Both women and midwives found this approach acceptable. Obstetricians were supportive and appreciative of the care pathways.

Discussion:
The barriers and facilitators to establishing such a program in a private, regional obstetric setting are discussed. Possible application to other similar settings is considered.

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Music therapy in an inpatient mother and baby unit: an evaluation of acceptability, experience of participation and perceived impact

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Objectives/Background: Existing research has shown that 'infant-directed' music and singing, delivered as an community-based intervention for mothers experiencing postnatal depression or anxiety, is associated improved maternal health and parenting outcomes[1,2]. However, the feasibility of introducing music therapy sessions as a routine component of a specialist mother-baby inpatient group program is yet to be examined. The primary aim of this study is to examine the acceptability, experience of participation and perceived impact of weekly music sessions to both mothers admitted to the mother-baby unit (MBU) and their care providers.

Methods: This is a prospective cohort study, utilising a pre- and post-test mixed methods design. Data will be collected consecutively from consenting women who have been admitted to the MBU during the study period (March – May 2016), and from staff providing care to women admitted during this time. Patients will complete the Quick Mood Scale (QMS)[3], a visual analogue scale and a study-specific survey (addressing e.g., level of comfort; perceived helpfulness) shortly before and after each music session. Staff will complete short surveys before and after the study period, and will provide additional feedback in the form of semi-structured interviews and/or focus groups.

Results: Paired samples t-tests and repeated measures analysis of variance will be used to examine the association between attendance at the music therapy sessions and improvements in maternal mood and changes in patient experiences and perceptions pre- and post-session. Changes in care provider experiences and perceptions of the music therapy sessions pre- and post-study will also be examined.

Conclusion/Discussion: This study will be the first to report on the acceptability and impact of music therapy for mothers admitted to an inpatient MBU and their care providers. The importance of study findings for informing the development and delivery of services to this unique patient group will be discussed.

Key words: Music therapy, mother-baby unit, perinatal depression

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Does my child have a sleep problem and what are my options? Mothers' perceptions of what influences their sleep management decisions

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Background:

Paediatric sleep practices are contentious in public (McKay, 2015) and academic (Price, Hiscock & Gradisar, 2013) literature. Yet little research has examined mothers' perception of managing sleep in their young children. Parents are the primary agents of change in children's lives, thus it is important to understand factors which impact on their decisions to inform policy and professional practice.

Methods:

A qualitative design was used to explore mothers' perceptions of what influenced their sleep management decisions. Forty-two mothers of 6-18-month-old children participated in 20 semi-structured interviews. Mothers were partnered, mostly primiparous (*n*= 26, 62%), and living in Australia. Thematic analysis was conducted and data collection ceased at saturation.

Results:

Factors which influenced mothers' sleep-related decisions were captured in themes reflecting expectations, comparisons with others, seeking and evaluating information, aligning with like-minded people, selective ignoring, and owning decisions. Mothers shared how they made decisions based on the individual and familial circumstances of that moment. They considered the consequences of their actions for the child, self, and family when deciding how to manage sleep, and shared how they came to accept and embrace their choices over time.

Conclusion:

Mothers chose how to manage their child's sleep based on a large range of factors, which they expected to be different between times, children and families, making decisions and actions unique. Policy and professional practices need to be flexible enough and have a broad range of options to account for these unique variations and needs among families, or risk being avoided or ignored.

Sleep; Decision-making; Mothers;

McKay,P., 2015, Baby sleep trainers – do you have the guts to tell them to bugger off?, http://www.pinkymckay.com/baby-sleep-trainers-do-you-have-the-guts-to-tell-them-to-bugger-off/

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Physical health and breastfeeding problems in the early postpartum: effect on maternal psychological well-being

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Full Oral Presentation (15 mins, 5 mins discussion)

Background: Physical health symptoms and breastfeeding problems are common in postpartum women.[1] This study aimed to investigate the contribution of physical health symptoms and breastfeeding problems to maternal mood at 8 weeks postpartum.

Methods: A prospective cohort of 229 primiparous women was recruited. Physical health symptoms checklist[2] and breastfeeding problems were recorded (1, 2, 3, 4 and 8 weeks postpartum). Mood was assessed using the Profile of Mood States[3] (4, 8 weeks). Participants were classified as '*high burden physical symptoms*' (≥3 symptoms, ≥2 time-points); '*high burden breastfeeding problems*' (≥2 symptoms, ≥2 time-points) or '*both*' (c.f. few or no symptoms). Multivariate linear regression investigated the effect of these three 'risk' categories on maternal mood (8 weeks, PoMS), adjusting for demographic characteristics, prior mood, infant behaviour, quality of partner relationship, and personality attributes.

Results: Fifty-three women (24%) had high burden of physical symptoms only; 45 (20%) had high burden of breastfeeding problems only, and 26 (11.6%) had both. A high burden of physical health symptoms (β=9.5, p=0.03), a high burden of breastfeeding problems *(*β =14.5, p=0.001*)* and a high burden of both (β=18.3, p=0.001) were significantly associated with poorer mood. A gradient effect was observed where cumulative burden was associated with poorer mood compared to women with fewer symptoms.

Conclusions: Physical health and breastfeeding problems are important risk factors for worse maternal mood. They are modifiable, but are often overlooked in clinical care. Results provide impetus more comprehensive support for physical and mental health beyond the current 6 week postnatal check.

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Keywords: Maternal mood; breastfeeding; postpartum physical health

Presenter Biography

Associate Professor Lisa Amir, MBBS MMed PhD IBCLC FABM FILCA, is a general practitioner and lactation consultant. She works in breastfeeding medicine at The Royal Women's Hospital in Melbourne and in private practice. She is a Principal Research Fellow at the Judith Lumley Centre (formerly known as Mother & Child Health Research), La Trobe University, Australia. She is the author of over 80 peer-reviewed articles. She is the Editor-in-Chief of *International Breastfeeding Journal*.

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How do we know who to support?: An antenatal eligibility screening tool for a home visiting service

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Background

A simple antenatal risk factor survey was designed to determine eligibility for a trial of sustained nurse home visiting. We investigated the feasibility of the survey when collected in public settings.

Methods

Design & Setting: Study-designed survey data linked with clinician-collected risk factors.

Participants: Pregnant women attending antenatal clinics at two Victorian hospitals.

Measures: (a) Survey: age, social support, health, education, employment, and proxy poverty measures. (b) Clinician-collected data: smoking, substance abuse, social support, domestic violence and mental health problems.

Analyses: Feasibility was assessed through survey completion. Ten survey items were dichotomised into risk versus no risk. A count of survey risk factors co-occurring with clinician-collected risk factors assessed utility.

Results

166/186 (89%) eligible women completed the survey. 139/166 (84%) consented to linkage with clinician-collected data. This high response and zero missing data demonstrated feasibility.

Of women with both survey and clinician-collected data, 92/139 (66%) had ≥1 survey risk factors and 30/139 (22%) had ≥3, and 36/139 (26%) had ≥1 clinician-collected risk factor. A survey risk factor count of ≥2 identified 38% of all women screened: 61% with clinician-collected risk and 30% without.

Discussion

Psychosocial screening in pregnancy is an important tool to inform decisions about intervention and support services, however clinical assessments can be perceived as intrusive (Rollans, Schmied, Kemp, & Meade, 2013). This survey can be collected in public waiting rooms and includes psychosocial and socioeconomic questions that may not be included in the clinical interview yet are valuable to identify women who may require additional support (Chittleborough, Lawlor, & Lynch, 2011). It also identifies most women who report other risk factors that may be less acceptable to ask or can only be asked privately.

Keywords

Antenatal Prevention Risk Screening

References

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Examining the Association between Trauma, Postpartum Depression, and Hormone Function in a Birth Cohort of Latinas

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Objective: Latinas in the U.S. have elevated risk of trauma[1] and postpartum depression (PPD)[2]. Dysregulation of the hypothalamic-adrenal-pituitary (HPA) axis as well as oxytocin (OT) signaling have been associated with a history of trauma[3] and PPD[4, 5]. This study explores the psychological and physiological associations between trauma, PPD and hormone function in a birth cohort of Latinas.

Methods: A prospective sample of 34 Latinas in the U.S. were recruited during their third trimester of pregnancy and followed through 8 weeks postpartum. Depression status was assessed with the Edinburgh Postpartum Depression Scale (EPDS) at enrollment and 4 and 8 weeks postpartum. At 8 weeks postpartum, women participated in two laboratory protocols. Plasma OT was collected via an intravenous (IV) catheter at predetermined times during an infant feeding session. The cold pressor test (CPT) was used to activate the HPA axis. Plasma adrenocorticotropic hormone (ACTH) and serum cortisol (CORT) were collected before and after the CPT via IV. Analyses of variance were used to explore associations between trauma, PPD, and hormone function (i.e., ACTH, CORT, and OT).

Results: One third of women were depressed at enrollment. Close to a quarter of the women experienced childhood sexual or physical abuse and twelve percent reported an infant-related trauma (e.g., infant death). Women with a history of sexual abuse exhibited significantly lower OT levels compared non-victims ($p=0.019$). A history of infant-related trauma was significantly associated with PPD ($p=0.0416$) and an attenuated ACTH response to the CPT ($p=0.0269$). Furthermore, women who reported any childhood trauma exhibited a significant decrease CORT response from pre- to post-CPT compared to women without a history of childhood trauma ($p=0.0468$).

Conclusions: While causation could not be established in the present study, the results highlight the risk childhood and adult trauma represent for depression and dysregulated hormone function during the perinatal period.

Keywords: *Trauma, Postpartum Depression, HPA axis, Oxytocin, Latinas*

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Does employment and job quality affect parents' perinatal mood? Review of recent evidence from two Australian cohorts

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Full Oral Presentation (15 mins, 5 mins discussion)

Background: Employment is a major social determinant of health for all adults but has yet to be widely considered as a potential influence on maternal and paternal mood. The aim of this presentation is to review evidence from two contemporary Australian cohorts assessing the relationship between parents' paid work and perinatal mood for mothers and fathers.

Methods: Review of evidence from two separate cohorts (using multivariate, fully adjusted models):

(i) Studies (n=4)[1] using data from parents in the *Longitudinal Study of Australian Children* Infants (N~ 5000); primary outcomes include mental health (Kessler-6) and breastfeeding; exposures include job quality (autonomy, leave, flexibility, security), and work-family conflict.

(ii) Two studies[2] using data from a prospective cohort of employed women (n=165) recruited in pregnancy and followed until 10 months postpartum; primary outcomes are maternal antenatal mood (EPDS, PoMS), breastfeeding and maternal-infant attachment; primary exposures are job conditions.

Results: Consistent results are reported for mothers and fathers. Poor job conditions were independently associated with worse maternal antenatal and postpartum mood. Breastfeeding duration was curtailed by employment participation; maternal – infant attachment was not affected. For fathers, poor job quality was associated with worse mental health, and higher conflict between paid work and family responsibilities.

Conclusions: Jobs are salient influences on parents' psychological wellbeing, including during the perinatal period. Understanding how workplaces do (or do not) provide support to mothers and fathers of infants is necessary to inform public health interventions targeting social determinants of perinatal mood.

Keywords: Employment, social determinants, maternal mood, paternal mood, postpartum.

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Presenter biography (100 words)

Dr Cooklin is a social scientist and Research Fellow at the Judith Lumley Centre at La Trobe University, leading the work-family research area within the Centre's 'Transition to Contemporary Parenthood Program'. She has established expertise in the epidemiology of parents' mental health, the social determinants of parenting, and the work-family interface. Her research comprises epidemiological cohort studies and intervention trials, with a focus on establishing the longitudinal relationships between parents' mental health (anxiety, depression, fatigue), parenting and children's outcomes; and the role of parents' employment, job quality and work-family balance on parent mental health and parenting.

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Establishment of community-based mental healthcare

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Objective/Background

Postnatal mothers have home visit service by health visitors if they deliver low birth weight infants to be monitored or the mothers need baby care support, but mental health support for those women were not included in this conventioal service.

Method

Study Ⅰ: In 1998, a community based preliminary study on postnatal depression was firstly conducted. One hundred mothers were asked to fulfill the Edinburgh Postnatal Depression Scale (EPDS) by the health visitors at home visits. At 12 months postnatally the mothers took diagnostic interview by the psychiatrists

Study Ⅱ: In 2001, a nation-wide self-administered postnatal survey during the first 120 days at home visit was carried out. Three questionnaires were used, the EPDS, the Mother-to-Infant Bonding Scale, and a questionnaire for detecting risk factors of the onset of depression and baby-related mental issues. A total of 3370 people surveyed in 12 regions.

Results

Twenty eight percent of the mothers in study Ⅰ experienced depression within 12 postnatal months . Study Ⅱ showed that the number of the mothers who scored 9 or more on the EPDS (cut off point in Japan) was 469 (13.9%). The Mother-to-Infant Bonding Scale data indicated that the mothers' depressive symptoms were related to feelings of rejection and anger toward the infant. In the high EPDS score group, 41.4% of the subjects found it difficult to understand why their baby was crying, and 3.2% replied that they

had wanted to hit their baby in frustration, which was twice as high as the figure for the low EPDS score group.

Conclusion

Community-based mental health care by using the EPDS gradually became more common. Since 2014, psychiatrists, obstetricians, midwives, and public health visitors have begun to cooperate to achieve more integrated mental health care system.

Theme – Hot topics, **sub-theme** – Implementation and policy

The Western Australian Perinatal and Infant Mental Health Model of Care: from creation to implementation

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Full oral presentation

Objective: Outlines the development and implementation of the Western Australian(WA) Perinatal and Infant Mental Health Model of Care 2016, its focus and contribution in supporting the provision of evidence-based, integrated and holistic care to mothers, infants and their families.

Background: The importance of supporting the mental health of mothers, babies and their families from pre-conception, throughout the perinatal period and early childhood has received increasing attention. Perinatal mental health problems are associated with enduring adverse outcomes for parents and children, including emotional, behavioural and cognitive difficulties for infants/young children when their relationships are compromised.

Method: Led by Caroline Zanetti and the late Jonathan Rampono (then Felice Watt), a team of clinicians and consumers contributed to the development of the Model. The Women and Newborn Health Service – a Statewide service based in Perth WA, in collaboration with WA Health Networks, provided support in ensuring broad consultations occurred across a diverse range of people and agencies within WA.

Results: The Model provides a comprehensive and holistic framework to inform and support perinatal and infant mental health care for WA families. The Model describes evidence-based best practice and service delivery across the perinatal and infant/child continuum of care; pre-pregnancy, perinatal, infant and early childhood periods. It provides guiding principles for care to women, babies/young children and their families supported by recommendations and implementation strategies, together with comprehensive "Service Guide" to support clinicians.

Conclusion: The session describes the content of the Model, provides an overview of its journey through early development stages, processes, pitfalls and constraints, strengths and limitations as well as implementation of the recommendations and strategies.

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Patient Evaluation for the Development of Postpartum Depression

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Objectives/Background: Postpartum depression may not only impair a woman's life, but can also have detrimental effects on an infant's cognitive and motor development. This study evaluates risk factors for the development of postpartum depression and investigates their long-term effects on a mother's mental health and ability to bond with her newborn. With earlier identification and assessment of high-risk patients, we may provide more timely treatment and prevent detrimental consequences of this disease.

Methods: Using electronic medical records, we performed a retrospective chart review of patients delivered at Metropolitan Hospital Center from October 2013 to December 2014. Comparisons were made using the Mann-Whitney U Test to identify risk factors for development of postpartum depression. An association was identified between patients with antepartum psychiatric diagnoses and those who receive treatment for postpartum depression.

Results: Out of 1391 patients, 105 had psychiatric diagnoses and underwent full psychiatric evaluation postpartum. Compared to controls, these patients were less likely to breastfeed, had decreased infant bonding, and were more likely to have neonates involved in the foster care system. These results were statistically significant ($p=0.001$). Twenty subjects (19%) were treated with pharmacologic therapy within 18 months of delivery.

Conclusion/Discussion: High-risk patients should undergo screening for postpartum depression in the immediate postpartum period. Those with a history of psychiatric diagnoses should be evaluated further prior to discharge and return for an earlier postnatal visit to review mood symptoms. Earlier diagnosis and intervention in these patients may promote an improved maternal-neonate relationship.

3 Key Words: postpartum, depression, screening

References:

1. Musters C, McDonald L, Jones I. Management of postnatal depression. BMJ2008;337:a736.
2. Clare CA, Yeh J. Postpartum depression in special populations: a review. Obstet Gynecol Surv. 2012 May: 67(5): 313-23.

Full Oral Presentation (15 minutes)

Abstract Title

"Dual diagnosis in Perinatal Mental Health Care - the synergistic benefits of two specialised services."

Megan Rohde[1], Tina Winzar[1], and Dr Virginia Loftus[1,2]

[1]Raphael Services, St John of God Health Care Bendigo, Australia.

[2]Centre for Women's Mental Health, Royal Women's Hospital, Melbourne, Australia.

Objectives/Background

To provide a case study of the treatment of perinatal depression and mother child attachment difficulties with concurrent treatment for alcohol dependence.

Substance misuse can be symptomatic of untreated mental illness. It is often unrecognized but substance misuse in the perinatal period can have wide ranging detrimental effects for a woman and her family.

Raphael Services Bendigo is a Tier 2 specialist perinatal and infant mental health service in a regional Australian city, providing mental health care to parents and their children in the perinatal period, from conception to the index child's fourth birthday.

To ensure that parents and their children receive timely and appropriate care when they present with comorbid perinatal mental health needs and substance use or dependence, the concurrent involvement of a specialist drug treatment service is invaluable

Methods

Brief discussion regarding importance of identifying and treating comorbid substance dependence in the perinatal population.

A case study of maternal perinatal depression with attachment difficulties and co-morbid alcohol dependence, formulated and treated with reference to psychotherapeutic literature.

Results

Case provides ideas regarding ways perinatal and infant mental health services and drug treatment services can work collaboratively, to avoid exclusion of dual diagnosis patients and their families from timely treatment of mental illness and parent child relational difficulties.

Conclusions

Where possible, perinatal and infant mental health services and drug treatment services should consider negotiating collaborative care arrangements for dual diagnosis patients in the perinatal period.

3 Key Words

Alcohol
Dual-diagnosis
Attachment

References

Mares, S., Newman, L., & Warren B. (2005). *Clinical Skills in Infant Mental Health* (2nd Ed.). (ch 15) Australia: Acer Press.

An Overview of alcohol misuse and parenting - Published by the Australian Institute of Family Studies, January 2015. Taken from website www.aifs.gov.au/cfca/publications on 11th March 2016.

Quality improvement in perinatal mental health services in the UK - establishing a national network

1. Objectives/Background

   In 2006, the Royal College of Psychiatrists made a commitment to promote Perinatal mental health. As part of this, funding was given to establish a UK wide Quality Network for Perinatal Mental Health Services which would measure the quality of services and support service development.

2. Methods

   The network has developed two sets of service standards – one for inpatient mother and baby units (in 2007) and the other for specialist community Perinatal teams (2012). Services in the network complete a self-review measuring their compliance with the standards and then receive a peer-review visit from a team of clinicians working in similar services nationwide and a patient representative. On the day, the reviewers meet with staff, patients and families to identify areas of achievement and for improvement and share their own experiences to help the service's action planning. Accreditation is also available to services who meet sufficient standards.

3. Results

   All mother and baby units in the UK participate in the network and the standards are included in NHS England's national service specification. Over 20 community teams also participate. The network has increased sharing of good practice between services and compliance with the standards has improved over time. The presentation will give examples of improvements across services since the network was established.

4. Conclusion/Discussion

   Possible application of the model outside the UK.

5. 3 Key words

   Quality, service development, audit

6. References

Thompson, P., Mahon, K. (2014). Quality Network for Perinatal Mental Health Services, Standards for Mother and Baby Inpatient Units, Fourth Edition. London: Royal College of Psychiatrists
Thompson, P., Rodell, H. (2014). Quality Network for Perinatal Mental Health Services, Service Standards: Perinatal Mental Health Community Standards, Second Edition. London: Royal College of Psychiatrists.

Identifying Risk Factors for Postpartum Mood Episodes in Bipolar Disorder – A UK Prospective Study

Amy Perry[1], Katherine Gordon-Smith[1], Arianna Di Florio[2], Liz Forty[2], Nick Craddock[2], Lisa Jones[1], Ian Jones[2]

[1]Department of Psychological Medicine, University of Worcester, WR2 6AJ, UK.
[2] Institute of Psychological Medicine and Clinical Neurosciences, MRC Centre for Neuropsychiatric Genetics and Genomics, Cardiff University, CF24 4HQ, UK.

Aims
Women with bipolar disorder are at particularly high-risk of illness episodes following childbirth (Di Florio et al., 2013), yet high-quality prospective studies in this high-risk group are rare (Viguera et al., 2007). We are conducting a UK study to explore risk factors for episodes of postpartum mental illness in women with bipolar disorder using a prospective longitudinal design.

Methods
Lifetime psychopathology is assessed via semi-structured interview (Schedules for Clinical Assessment in Neuropsychiatry) during the third trimester of pregnancy (baseline) with a follow-up interview to assess perinatal psychopathology at 12-weeks postpartum. Data are also collected on obstetric factors, medication use, sleep and psychosocial factors related to pregnancy and a blood sample is taken for genetic analysis. Interview data are supplemented by clinician questionnaires and case-note review. Potential risk factors, measured at baseline, will be compared between women who experience perinatal illness episodes and those who remain well.

Results
80 pregnant women with bipolar disorder have been recruited to date. 32/61 (52%) women had a perinatal recurrence by follow-up. 16 (26%) had onset in pregnancy. 21 (34%) had postpartum onset, 19 (90%) within 6-weeks of delivery: 11 (18%) postpartum psychosis, 5 (8%) postpartum hypomania, 5 (8%) postpartum depression. Postpartum relapse was more frequent in women with bipolar-I than bipolar-II disorder (45% vs 17%). 62% women with postpartum relapse took prophylactic medication peripartum and almost all received care from secondary psychiatric services (95%).

Conclusions
Rate of postpartum relapse in our sample is high, despite the majority of participants being under the care of specialist services and being on medication. A larger sample size will allow us to examine potential risk factors for postpartum episodes, which will assist clinicians in providing accurate and personalised advice to women with bipolar disorder who are considering pregnancy.

Key words: Bipolar disorder, prospective, postpartum mood episodes

Word count: 287 (max 300).

References:

Di Florio, A., Forty, L., Gordon-Smith, K., et al. (2013) Perinatal episodes across the mood disorder spectrum. **JAMA Psychiatry**, 70 (2): 168–75

Viguera, A.C., Whitfield, T., Baldessarini, R.J., et al. (2007) Risk of recurrence in women with bipolar disorder during pregnancy: prospective study of mood stabilizer discontinuation. **The American Journal of Psychiatry**, 164 (12): 1817–24

Development of the Pre- and Postnatal Bonding Scale (PPBS)

Ivon Cuijlits[1], Anneloes van de Wetering[1], Sophie Truijens[2] and Victor Pop[1]
[1] Department of Medical and Clinical Psychology, Tilburg University, Tilburg, The Netherlands
[2] Department of Obstetrics and Gynaecology, Máxima Medical Centre, Veldhoven, The Netherlands

Background
Bonding is a major topic in the field of developmental psychology, due to its importance for a child's later development. Studies investigating the relationship between prenatal and postnatal bonding show moderate correlations[1] However, an important limitation is that no similar instrument was used to measure bonding pre- and postnatally. The current study developed a user-friendly questionnaire to assess maternal bonding during pregnancy and postpartum and evaluated the relation between scores of these scale and depression and partner support.

Methods
In a large unselected sample of 1040 pregnant women[2] the positive items of two existing bonding scales were used to construct a fourteen item prenatal and postnatal bonding list. The sample was randomly split into two equal sub-samples: group I was used for reliability and Explorative Factor Analysis, group II for Confirmative Factor Analysis (CFA). The bonding scale was assessed at 32 weeks pregnancy and at 8 and 12 months postpartum. The Edinburgh Depression Scale (EDS) and the subscale partner involvement of the Tilburg Pregnancy Distress Scale (TPDS) were used to assess concurrent and discriminant validity.

Results
After CFA, a 5-item bonding scale remained with excellent model fit (CFI:.98, TLI:.99, NFI:.98; RMSEA: 0.05, lower bound 0.02.The alpha's Cronbach at 32 weeks gestation and 8 and 12 months postpartum were: .85, .80 and .80, respectively. Test-retest correlations of the PPBS were high: .43, .40, and .66, respectively. At 32 weeks gestation, the PPBS correlated significantly with partner support scores of the TPDS: .34. GLM-ANOVA repeated measurement showed that women with postpartum depression showed significantly lower bonding scores from 32 weeks gestation until 12 months postpartum ($F = 35$, $P < 0.0001$).

Conclusion
The PPBS seems to be a 5-item user friendly self-rating scale with good psychometric properties and concurrent validity, both pre- and postnatally.

Keywords*:* pre- and postnatal bonding, construct validation, depression, partner support

References:
1. Rossen L, Hutchinson D, Wilson J, Burns L, Olsson CA, Allsop S, Elliott EJ, Jacobs S, Macdonald JA, Mattick RP. Predictors of postnatal mother-infant bonding: the role of antenatal bonding, maternal substance use and mental health. *Archives of Womens Mental Health* 2016.
2. Truijens SE, Meems M, Kuppens SM, Broeren MA, Nabbe KC, Wijnen HA, Oei SG, van Son MJ, Pop VJ. The HAPPY study (Holistic Approach to Pregnancy and the first Postpartum Year): design of a large prospective cohort study. *BMC Pregnancy Childbirth* 2014; 14:312.

Marcé In-Conference Workshop

Getting From Here to There: Translation of the National Perinatal Association Interdisciplinary Recommendations for Psychosocial Support of NICU Parents and Staff into Clinical Practice

Nancy Selix DNP, FNP-c, CNM
Stephen Lassen, PhD
Marylou Martin RNC-NIC, MSN

Objectives:

Disseminate information about the interdisciplinary recommendations for psychosocial support of NICU parents and staff created by the National Perinatal Association (NPA).

Understand how recommendations from NPA translate to broader perinatal populations.

Outcome:

Participants will create a plan to apply at least one of the NPA recommendations to the participants' clinical setting.

Abstract:

Psychosocial needs along the perinatal continuum have been well-documented in the scientific literature. However, specific guidelines for how to allocate limited psychosocial resources have been limited to date. Recent publication of the NPA recommendations for psychosocial support of NICU parents is a step toward a more thoughtful, evidence-based approach to addressing this need. Although these recommendations focus on particular aspects of the NICU, they have broader applicability across the perinatal continuum.

This workshop will provide information on the recent NPA recommendations. Within these recommendations are strategies for support of the NICU family and the professionals who care for them. A case example of application of the recommendations in a resource constrained NICU will be offered along with discussion of methods for implementing and sustaining positive change. Opportunities will be provided to facilitate participant application of these recommendations to a variety of perinatal settings in acute and primary care.

Participants will be given an opportunity to work in small groups with the presenters as facilitators to examine ways to apply the recommendations to individual clinical settings. A debriefing session will be provided at the end of the workshop to summarize participants' experiences and to assess learning outcomes.

Key words: Psychosocial, perinatal, clinical practice

References

Hall, S.J., Cross, J., Selix, N.W., Patterson, C., Segre, L., Chuffo-Siewert, R., Geller, P.A., and Martin, M.L. (2015).Recommendations for enhancing psychosocial support of NICU parents through staff education and support. *Journal of Perinatology,35*(147*)*, S29-S36. doi:10.1038/jp

Hall, S. L. & Hynan, M. T. (Eds.). (2015). Interdisciplinary recommendations for the psychosocial support of NICU parents. *Journal of Perinatology, 35*(Supp. 1), S1-S36. doi 10.1038/jp.2015.147

National Perinatal Association (2015). Support 4 NICU parents. Retrieved from http://support4nicuparents.org/

Biographies

Nancy Selix, DNP, FNP-c, CNM is a nurse-midwife, family nurse practitioner and an associate professor at the University of San Francisco School of Nursing and Health Professions. Her research and clinical practice includes perinatal mental health, integration of mental health services into primary care, interdisciplinary practice, and policy creation at the national level.

Stephen Lassen, PhD is an Associate Professor of Pediatrics and Psychiatry and Behavioral Sciences at the University of Kansas Medical Center. His clinical and research interests include perinatal mental health, children with chronic or life-limiting illnesses and their families, as well as the impact of parental illness on children.

Marylou Martin, RNC-NIC, MSN is a Clinical nurse Specialist and Nurse Educator for all perinatal and pediatric units at McLeod Regional Medical Center in South Carolina. Her research and clinical interests include transcultural care, quality improvement, palliative care, hospice, patient and staff education related to perinatal or pediatric health issues.

Personalising risk predictions of perinatal recurrences in bipolar disorder

Arianna Di Florio (1,2), Katherine Gordon-Smith (3), Liz Forty (1), Nick Craddock (1), Lisa Jones (3), Ian Jones (1).

(1) Cardiff University, UK
(2) University of North Carolina at Chapel Hill, USA
(3) University of Worcester, UK

Objectives/Background: There is a paucity of evidence to support decisions regarding pregnancy planning and management of women with bipolar disorder, despite the high risk of perinatal illness[1] and the possible effects of prenatal exposure to medications on offspring[2]. In this context, any data which helps to individualize the risk will be helpful for women making these difficult decisions. In the current study we aimed to explore and quantify the impact of previous perinatal history on the risk of perinatal recurrence.
Methods: Information was gathered retrospectively by semi-structured interview, questionnaires and case-note review in 669 multiparous women with bipolar disorder. Random forests were used to select the variables that were important in predicting a perinatal recurrence.
Results: A previous history of perinatal illness was the only significant variable associated with a subsequent perinatal episode. The rates of perinatal recurrence were significantly higher in women with a previous perinatal episode than in those without (55% versus 32%, $p<0.0001$). The previous clinical presentation (depression or affective psychosis and time of onset in relation to delivery) influenced the presentation of a further perinatal episode (Cohen's Kappa 0.29, $p<0.0001$ and Spearman correlation 0.25, $p=0.0436$ respectively).
Conclusion/Discussion: Parous women with bipolar disorder without perinatal history may still develop an episode in relation to subsequent pregnancies. Clinicians' advice on the risk of perinatal recurrence in women with bipolar disorder should be based on the past perinatal history.

Key words: Bipolar disorder; postpartum psychosis; personalized predictions.

References:

1. Di Florio A, Forty L, Gordon-Smith K, et al. Perinatal episodes across the mood disorder spectrum. JAMA Psychiatry Chic Ill 2013;70(2):168–75.

2. Johnson KC, LaPrairie JL, Brennan PA, Stowe ZN, Newport DJ. Prenatal antipsychotic exposure and neuromotor performance during infancy. Arch Gen Psychiatry 2012;69(8):787–94.

Marcé Conference Full Oral Presentation

Recent Perinatal Mental Health Policy Changes in the US

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Background: Screening, treatment, and referral efforts for perinatal mental health in the US have been uncoordinated in the past. Recent policy changes aim to increase awareness of professionals, provide guidelines for care, and serve as a basis for reimbursement for services. These policy changes are designed to improve quality and increase access to services.

Methods: A review of recently published policies and how those policies affect clinical practice in the US will be discussed. Aspects of streamlining services, interprofessional collaboration, and measures of improved quality will be reviewed.

Results: Policy changes affect clinical practice and have the potential to coordinate interprofessional services to improve access, promote early detection, and intervention that ultimately improve outcomes for perinatal mothers and their infants, children, and families. However, gaps in the new policies exist. Potential revisions will be discussed.

Conclusions: Policy changes affect clinical practice. Increasing awareness of these policy changes and how they impact clinical practice will provide participants with information on ways to adopt them in the US. Strategies to revise existing policies and to adapt them for use in other countries will be explored.

Key words: policy, clinical practice, change

References:

American College of Obstetricians and Gynecologists (2015). Committee opinion: Screening for depression. No. 631. Retrieved from http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Screening-for-Perinatal-Depression

Mental Health Association of America (2015). Position statement #49: Perinatal mental health. Retrieved from http://www.mentalhealthamerica.net/issues/position-statement-49-perinatal-mental-health

Selix, N. (2015). Creation of a national policy on perinatal depression: role of the

advanced practice nurse. *Journal for Nurse Practitioners,11*(2), 214-219. doi.org/10.1016/j.nurpra.2014.11.009

United States Preventive Task Force (2016). Screening for depression in adults: US preventive services task force recommendation statement. *JAMA (315)*4, 380-387. doi:10.1001/jama.2015.18392

International Marce Society Conference 2016
Frontiers in Perinatal Mental Health – Looking to the Future.

Abstract

Title : If we are saying goodbye to 'listening visits', what does this mean for the way that health visitors support mothers with mental health problems in the future?

Background : Historically, health visitors have been trained to deliver 'listening visits' to support mothers with mental health problems. 'Listening visits' are not included in the updated NICE guideline [1] as a recommended intervention. Maternal mental health is a high impact area designated as a core component of health visiting practice [2]. Mixed messages from policy and guidelines may lead to confusion and variations in practice.

Objectives: To chart the evolution of 'listening visits in relation to evidence, policy and practice; to find out what health visitors are doing at the moment; to explore the barriers and facilitators that influence what they do and how they do it; to gain insight into the factors that need to be taken into account in the development of future interventions.

Methods : A literature review to consider how and why perinatal mental health visiting practice has changed over time, to clarify what is meant by a 'listening visit' and to compare and contrast 'listening visits' with other recommended interventions; a critical appraisal of the NICE guideline to understand the reasons for excluding 'listening visits'; an electronic survey of health visitors, based on the 'Theoretical Domains Framework', to explore attitudes, expectations, context and current practice.

Results : The survey has been launched, the literature review and critical appraisal are in progress. Results will be collated between April and June 2016.

Conclusion: In order to improve outcomes it is necessary not only to know what works but also to understand how interventions change over time and the factors that influence organizational priorities and health professional behavior.

References :

1. NICE (2007) *Antenatal and postnatal mental health*
London: National Institute for Health and Care Excellence.
2. Department of Health (2014) *Overview of the six early years high impact areas.*
London: Department of Health

Key words : health visitors, 'listening visits', implementation science.

Abstract

Objectives
To explore the factors which influence the decision-making of women with bipolar disorder regarding pregnancy and childbirth.

Methods
Qualitative study using a purposive sample of women with bipolar disorder who were considering pregnancy, or currently or previously pregnant, supplemented by data from an online forum. Thematic analysis was carried out using both sources of data.

Results
Twenty-one women with bipolar disorder from an NHS organisation were interviewed and written data was obtained from a further 50 women via the online forum of the charity Bipolar UK. Major themes that emerged were: Fear of damaging the fetus or of relapsing; Centrality of Motherhood; Context such as cultural and economic factors and level of social support, and Stigma from health professionals as well as society generally. New findings included women considering an elective Caesarian section in an attempt to avoid the deleterious effects of a long labour and loss of sleep, or trying to avoid the risks of pregnancy altogether by means of adoption or surrogacy.

Conclusions
This study highlights the complexity of the dilemmas faced by women with bipolar disorder with regard to pregnancy and identifies gaps in treatment provision to help them avoid episodes of illness in the perinatal period. It indicates the usefulness of preconception planning for this population, and underscores the need for specialist advice, preferably a considerable time before becoming pregnant. Non-specialist health professionals working with women with bipolar disorder of childbearing age would benefit from improved training to reduce stigmatizing attitudes and increase their knowledge of the condition and its specific implications for treatment in the perinatal period.

References

Di Florio et al. Perinatal episodes across the mood disorder spectrum. JAMA psychiatry 2013;70(2):168-175.
Wilson & Crowe. Parenting with a diagnosis bipolar disorder. J Adv Nurs 2009;65(4):877-884.

Keywords: bipolar disorder; pregnancy; childbirth.

The Prevalence of Antenatal and Postnatal Anxiety: A Systematic Review and Meta-Analysis

Cindy-Lee Dennis,[12] Kobra Falah-Hassani[1]
[1] University of Toronto, Toronto, Canada
[2] Women's College Hospital, Toronto, Canada

Objective: To establish summary estimates for the prevalence of maternal anxiety in the antenatal and postnatal periods.

Methods: Systematic search of diverse electronic databases for studies with data on the prevalence of antenatal or postnatal anxiety published between January 1950 and January 2016. Cohort and cross-sectional studies were included if they were published in the peer-reviewed literature and used a validated method of assessing anxiety. Following a review of all identified citations, information on study characteristics and anxiety prevalence was extracted for all included studies. Study quality was assessed using the Effective Public Health Practice Project Quality Assessment Tool. All review stages were conducted independently by two reviewers. Estimates were pooled using random-effects meta-analysis.

Results: We reviewed 21,464 abstracts, retrieved 783 articles, and included 102 studies incorporating 221,974 women from 34 countries spanning six continents. Antenatally, the overall prevalence for self-reported anxiety symptoms across the three trimesters was 22.9% (95% confidence interval [CI] 20.5-25.2, 52 studies, N=42,833). The prevalence for a clinical diagnosis of any anxiety disorder was 15.2% (95% CI 9.0-21.4, 9 studies, N= 4648) and 4.1% (95% CI 1.9-6.2, 10 studies, N=6910) for a generalized anxiety disorder. Postnatally, the prevalence for self-reported anxiety symptoms between 1 to 24 weeks was 15.0% (95% CI 13.7-16.4, 39 studies, N=145,293). The prevalence for a clinical diagnosis of any anxiety disorder was 9.9% (95% CI 6.1-13.8, 9 studies, N=28,495) and 5.7% (95% CI 2.3-9.2, 6 studies, N=2667) for a generalized anxiety disorder. Rates were significantly higher in low-to middle-income countries in comparison to high-income countries.

Conclusions: Results suggest perinatal anxiety is highly prevalent and warrants clinical attention given the potential negative child developmental consequences if left untreated. Further research is warranted to develop evidence-based interventions for prevention, identification, and treatment.

Psychosocial and Psychological Interventions for Treating Postpartum Depression: An Updated Cochrane Systematic Review

Cindy-Lee Dennis[12], Simone N. Vigod[12], & Hilary K. Brown[12]
[1]University of Toronto, Toronto, Canada
[2] Women's College Hospital, Toronto, Canada

Objective: Many women experiencing postpartum depression are reluctant to take antidepressant medication due to concerns about breast milk transmission. Evidence-based, non-pharmacological treatment options are important. The objective of the study was to examine the effects of all psychosocial and psychological interventions compared with usual postpartum care in the reduction of depressive symptomatology among postpartum women.

Methods: We conducted a Cochrane systematic review and meta-analysis. We included all published, unpublished, and ongoing randomized controlled trials of psychosocial or psychological interventions where the primary or secondary aim was the reduction of depressive symptomatology. Two authors reviewed study quality and extracted data. Results will be presented using relative risk for categorical data and weighted mean difference for continuous data.

Results: Twenty-six trials met the inclusion criteria and reported outcomes for 2,756 women. Any psychosocial or psychological intervention, compared to usual postpartum care, was associated with a reduction in the likelihood of continued depression, however measured, immediately post-treatment. Both psychosocial and psychological interventions were effective in reducing depressive symptomatology. Interventions were more effective when delivered by professionals versus lay providers and when delivered individually versus in a group. However, effects were comparable whether interventions were delivered face-to-face or using technology and whether they were delivered in or outside of the home.

Conclusions: Despite limitations in the trials' methodological quality, the updated meta-analysis suggests that psychological and psychosocial interventions are an effective treatment option for women with postpartum depression. The long-term effectiveness remains unclear.

In Conference Workshop Submission to the

International Marcé Society Biennial Scientific Conference 2016

TITLE: *Young Children in Divorce and Separation*: Development of an online education intervention for separated parents.

Authors: Jennifer E. McIntosh[1, 2, 3], Siyun Tan (Evelyn)[1, 2]
[1] Deakin University, Centre for Social and Early Emotional Development, School of Psychology, [2] Murdoch Children's Research Institute[3] Family Transitions

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Objectives and expected outcomes

Achieving coordinated, responsive co-parenting of infants after separation is a high order task for parents in dispute, operating within the shadow of family law. This presentation first explores the theoretical and translational challenges of integrating the infant's " developmental voice" into family law decision making (McIntosh et al, 2014; Pruett et al, 2014). It describes the development of a tailored education program for separated parents of very young children, designed to address some of these barriers to effective co-parenting of infants after parental separation: *Young Children in Divorce and Separation* (YCIDS, McIntosh, 2012/2015). The first YCIDS randomized trial was conducted in the context of divorce mediation, with encouraging results (McIntosh & Tan, under review). Findings are shared, together with the significant 'real world' translational drawbacks of the pilot format, identified in focus groups. As a result of the pilot, migration of the program into an online format has since occurred. Workshop participants will become familiar with the resulting online YCIDS program, and its five major topics:

1. What's So Big About The Little Years?
2. Being Good-Enough Parents Who Live Apart
3. Young Children And Parenting Plans
4. Children Need A Village
5. Parenting Bridges: Sorting Out The Conflict

Various applications to participants' counseling, mediation and group work contexts will be discussed.

Key Words: divorce, infant, parent education

References:

1. **McIntosh, J. E.,** (2012/2015) *Young Children in Divorce and Separation. Online parent education program ChildrenBeyondDispute.com/YCIDS*
2. **McIntosh, J. E.,** Pruett. M., Kelly, J.B. (2014). Parental separation and overnight care of young children, Part II: Putting theory into practice. *Family Court Review. Vol. 52* No. 2, April 2014 257–263 http://onlinelibrary.wiley.com/doi/10.1111/fcre.12088
3. Pruett. M., **McIntosh, J. E.,** Kelly, J.B. (2014). Parental separation and overnight care of young children: Part I. Consensus through Theoretical and Empirical Integration. *Family Court Review*. *Vol. 52* No. 2, April 2014 241–256. http://onlinelibrary.wiley.com/doi/10.1111/fcre.12087

Oral Presentation

Recovery from Postnatal Depression: Endurance, sedition and sorting the family baggage.

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Abstract

Women who experience depression after the birth of their first child are at an increased risk of re-experiencing depression following a subsequent birth. This study builds on the work of feminist scholars who have sought to understand women's experience of depression and recovery within the context of their lives and the social, relational and political systems that affect them as women and mothers.

22 women who had experienced depression following the birth of their first child, were interviewed both prior to and following the birth of their second child. The narrative interviews focused on their experiences of and recovery from depression and their preparation for and the birth of their second child. The research was designed to generate in-depth and contextualized understandings of the women's experiences.

The most common narrative of recovery was "the endurance test" whereby over half the women described coming through by stoically trudging on. Women also identified changes in baby getting "easier" and/or they became the expert on their baby. These attributions as well as the use of seditious talk with friends helped dismantle idealised notions of motherhood and babies. A second narrative was adopted by two women who identified the work they did in dealing with the emotional baggage and relationships related to family of origin and their mothers as key.

Second births and motherhood were narrated as redemptive or even transformational. No women described experiencing depression again. Key aspects of the women enjoying motherhood more second time round related to their dismantling of multiple barriers to practical support and a hardier positioning of baby; "the first one survived, the second one will have to".

PND, Recovery, Narratives

Cowie, S. J. (2015). *Baby, Baby: Second Time Motherhood after Postnatal Depression*. PhD thesis. https://researchspace.auckland.ac.nz/

Lafrance, M. N. (2009). Women and Depression: Recovery and Resistance. London: Routledge.

Oral presentation for Marce 2016 conference

Hot topics: Fathers

Title: The influence of paternal depression on their children's emotion regulation

Authors: Selina Nath[1], Tamsin Ford[2], Willem Kuyken[3], Ginny Russell[2], and Lamprini Psychogiou[4]
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Institute of Psychiatry, Psychology and Neuroscience, King's College London, UK[1]
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Objectives/Background: Research has shown that fathers can suffer from postnatal depression which may influence their parenting abilities and children's behavioural problems. There is currently limited literature on the influence of paternal depression on their children's emotion regulation abilities which is explored here using data from two cohort studies.

Methods: Secondary data analysis was conducted on the Millennium Cohort Study (MCS; n=12,396). This consisted of a representative sample of UK fathers and questionnaire data. Paternal depressive symptoms were measured at 9-months and children's emotion regulation at 3, 5 and 7 years old. Findings from the MSC were explored further using in-depth data collected in the Fathers-in Focus-study (FIF; n=160) which consisting of fathers and their children aged 3-7 years old. Clinical interviews were used to measure paternal depression and an observational waiting/frustration task was used to measure children's emotion regulation.

Results: Secondary data analysis (MCS) found that higher paternal depressive symptom during the postnatal period were associated with children's emotion regulation problems at 3, 5 and 7 years old, even after controlling for maternal depressive symptoms, marital conflict and socio-economic factors. We are currently conducting analysis on the FIF data which will be ready to present at the conference.

Conclusion/Discussion: Paternal depression maybe a risk factor for children's emotion regulation problems. However, support and parenting intervention programs are primarily targeted at mothers. We advocate a family-centred approach and involvement of fathers in programs for depressed parents.

3 Key words: Fathers, depression, emotion regulation

References:

Nath S, Russell G, Ford T, Kuyken W, & Psychogiou, L.(2015). Postnatal paternal depressive symptoms associated with fathers' subsequent parenting: Findings from the Millennium Cohort Study. *The British Journal of Psychiatry, 207 (6), 558-559.*
Ramchandani P, Psychogiou L.(2009). Paternal psychiatric disorders and children's psychosocial development. *The Lancet, 374(9690), 646-653.*

Maternal depressive symptoms during pregnancy and after pregnancy and psychiatric problems in their children

Katri Räikkönen Institute of Behavioral Science, University of Helsinki, Finland
Academy Professor of Psychology

- Objective

To study whether maternal depressive symptoms during pregnancy are associated with child psychiatric problems, whether these associations are trimester- or gestational-week-specific, and/or independent of pregnancy disorders, and whether maternal depressive symptoms after pregnancy account for, mediate, or add to the prenatal effects.

- Methods

Prediction and Prevention of Preeclampsia (PREDO) is a prospective cohort study including women and their singleton children born in Finland 2006-2010, and followed up to 3.5 years (n=2296). Pregnant women were recruited when they attended their first ultrasound screening at gestational weeks+days 12+0/13+6 in antenatal clinics of ten study hospitals. They filled in the Center for Epidemiological Studies Depression-scale biweekly between gestational weeks+days 12+0/13+6 to 38+0-39+6 or delivery; pre-pregnancy obesity, gestational hypertension-spectrum disorders and gestational diabetes were fused from Medical Birth Register and/or verified by an independent jury; Beck Depression Inventory-II and Child Behavior Checklist 1½-5 were completed by the women in the follow-up.

- Results

In a prospective pregnancy cohort of 2296 women, maternal depressive symptoms during pregnancy were associated with higher internalizing, externalizing and total problems in their 3.5-year-old children. Associations were trimester- and gestational-week-non-specific, independent of pregnancy disorders, and independent of, although partially mediated by maternal post-partum depressive symptoms. Psychiatric problems were greatest in children of mothers with clinically significant depressive symptoms across pregnancy trimesters and after pregnancy. Additional analyses demonstrated significantly associations with all types of psychiatric problems in the domains captured by the CBCL.

- Conclusion

Maternal depressive symptoms during pregnancy predict higher risk for psychiatric problems in young children. Preventive interventions reducing maternal symptomatology as early in pregnancy as possible may benefit the mental health of the offspring.

- 3 Key words

Depression, programming, offspring

- References (minimum of 2)

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Reynolds RM, Labad J, Buss C, Gahammagami P, Räikkönen K. Transmitting biological effects of stress in utero: Implications for mother and offspring. *Psychoneuroendocrinology* 2013, 38(9): 1843-1849.

- Financial supports

Academy of Finland

Dads Who Can

Timothy O'Leary

Wellbeing At The Convent, Abbotsford.

Email: wecan@2canparenting.com.au

In-Conference Workshops (75 minutes)

1. Explain the objective and expected outcomes of the workshop

   In this workshop, fatherhood expert Timothy O'Leary will provide an overview of the research into the benefits of fathers[1], before exploring the strategies he uses to engage fathers. In order to build their parenting knowledge and skills.

   Tim will be reflecting on a decade's engagement with dads. The challenge of working with men is that if the material being presented is not seen as valuable or done in an engaging way, then they will immediate and at times blunt with their feedback! The benefit is that this feedback allows material and engagement strategies to be shaped and honed over time.

   Tim designed a very simple visual model to translate complex ideas such as attachment theory, attunement and co-regulation into accessible concepts that empower dads for the benefit of the whole family. Tim's new book[2], **Dads Who Can**, is the result of his work with dads, as well as his own reflections as a father. It draws upon the research into fathers as well as the vast body of literature around child-development and attachment theory and he will feature his innovative visual education-tools in his presentation.

2. Fathers, Engagement, Competence

3. References (minimum of 2)

1. The Effects of Father Involvement: An Updated Research Summary of the Evidence Inventory © Centre for Families, Work & Well-Being, University of Guelph, 2007
2. Timothy O'Leary (2016) Dads Who Can - Seven Ways A Father Matters, Rebus Press: Melbourne. (Currently being typeset for publication in April).

Presenters are required to provide details of their key publications**.

Timothy O'Leary (2016) Dads Who Can - Seven Ways A Father Matters, Rebus Press: Melbourne. (Currently being typeset for publication in April).

Title: Maternal Pregnancy-Specific Stress Predicts Adverse Maternal-Fetal Blood Flow, Fetal Physical Growth, and Neonatal Outcomes

Authors: Terri A. Levine, MSc,[1] Fionnuala M. McAuliffe, FRCPI, FRCOG, MD,[2] Ruth E. Grunau, PhD,[3] Ricardo Segurado, PhD,[4] Elizabeth Tully, PhD,[5] Patrick Dicker, PhD,[5] Fergal Malone, FRCPI, FRCOG, FACOG, MD,[5,6] Fiona A. Alderdice, BSSc, PhD (senior author)[1]

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Abstract

Background: Although pregnancy-specific stress is associated with preterm birth, altered fetal behaviour, and poorer infant development, potential mechanistic pathways linking pregnancy-specific stress and fetal and infant outcomes, such as maternal-fetal hemodynamics, remain relatively unexplored.

Objectives: The aim of this study was to examine associations between pregnancy-specific stress and the umbilical and middle cerebral artery pulsatility indices, cerebroplacental ratio, absent end diastolic flow, birth weight <2,500 grams, prematurity, neonatal intensive care unit admission, and adverse obstetric outcomes in women with small-for-gestational-age pregnancies.

Study Design: 331 PORTO study participants had serial Doppler ultrasound examinations of the umbilical and middle cerebral artery between 20-42 weeks gestation and completed the Pregnancy Distress Questionnaire between 26-40 weeks gestation. Binary logistic regression was used to analyse associations between PDQ scores at five time points across gestation and hemodynamic and neonatal outcome variables.

Results: Pregnancy-specific stress was associated with increased odds of abnormal fetal Dopplers, prematurity, and birth weight less than 2,500 g. Pregnancy-specific stress was not associated with cerebroplacental ratio or composite adverse perinatal outcome. Associations varied according to time at which stress was reported and type of stress reported.

Conclusions: These findings suggest that maternal-fetal hemodynamics may provide a mechanistic link between maternal prenatal stress and fetal well-being. Results are discussed in the context of existing research into the relationship between prenatal stress and maternal-fetal hemodynamics as measured by Doppler ultrasound, and suggestions for future studies are provided.

Key Words: Pregnancy-specific stress, Doppler ultrasound, neonatal outcomes

References

1. Davis EP, Sandman CA. The timing of prenatal exposure to maternal cortisol and psychosocial stress is associated with human infant cognitive development. *Child Development*. 2010;81(1):131-148.

2. Bussières E, Tarabulsy GM, Pearson J, et al. Maternal prenatal stress and infant birth weight and gestational age: A meta-analysis of prospective studies. *Developmental Review*. 2015;36:179-199.

3. Unterscheider J, Daly S, Geary MP, et al. Optimizing the definition of intrauterine growth restriction: The multicenter prospective PORTO study. *American Journal of Obstetrics & Gynecology*. 2013;208(4):290.e1-290.e6.

A pilot trial of an electronic patient decision-aid for women considering the use of antidepressants in pregnancy

Vigod SN[12], Hussain-Shamsy N[12], Grigoriadis S[13], Howard LM[4], Metcalfe K[12], Oberlander TF[5], Schram C[12], Stewart DE[16], Taylor VH[12] and Dennis CL[12]
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Background. Patient decision aids (PDAs) are tools that help patients make complex health decisions, in collaboration with their providers. We developed an interactive web-based PDA for women who are having difficulty deciding about antidepressant drug use in pregnancy, currently being evaluated in a pilot randomized controlled trial.
Methods. This is a pilot randomized controlled trial in Toronto, Ontario that aims to assess the feasibility of a larger efficacy study. The PDA aims to help women understand why an antidepressant is being recommended, be knowledgeable about potential benefits and risks of treatment and non-treatment with antidepressants; and be clear about which benefits and risks are most important to them. We include adult women who are pregnant or planning pregnancy, are deciding whether or not to use a selective serotonin reuptake inhibitor (SSRI) or serotonin norepinephrine reuptake inhibitor (SNRI) antidepressant in pregnancy, and having at least moderate decision-making difficulty (Decisional Conflict Scale, DCS, score $\geq$25). Participants are randomized to receive the PDA or an informational resource sheet via a secure website, and have access to the stated allocation until their final study follow-up. The primary outcomes are feasibility of recruitment and retention, acceptability of the intervention, and adherence to the trial protocol.
Results. We have randomized 42 women to date, with a 90% follow-up data collection rate at primary endpoint (4 weeks from randomization). Preliminary data suggest women find the online tool helpful, and easy to use. The impact of the PDA compared to the informational resource sheet alone on decisional conflict will be analyzed once target recruitment (n=50) is achieved.
Discussion. Our PDA represents a key opportunity to help women make timely and effective decisions about antidepressant use in pregnancy. The electronic nature of the PDA will facilitate keeping it up-to-date, and allow for widespread dissemination after efficacy is demonstrated.

Keywords: depression, pregnancy, patient decision aid
References (1, 2)**:**
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2. Walton GD, Ross LE, Stewart DE, Grigoriadis S, Dennis CL, Vigod S. Decisional conflict among women considering antidepressant medication use in pregnancy. Arch Womens Ment Health. 2014;17(6):493-501. Epub 2014/08/12.

Using CBT & Mindfulness with pregnancy loss – A case study

Rosie Smith[1]

[1]PADA – Perinatal Anxiety & Depression Aotearoa, Wellington, New Zealand

rosie53@gmail.com

Objective / Background

It is estimated that 60-70 per cent of grieving mothers in high-income countries reported clinically significant depressive symptoms one year after their baby's death and longer. (Ending preventable stillbirths study, 2016). Perinatal loss is also associated with maternal anxiety during pregnancy and linked to maternal postnatal distress. Mothers with a history of anxiety and poor coping skills and perinatal loss have a higher risk for complicated grief, now introduced in DSM V. A third of mothers with AND will go on to experience PND (Austin 2003, 2007). Antenatal distress can adversely affect the developing fetal brain and thus influence the baby's behaviour.

Method

Cognitive Behaviour Therapy for Grief & Loss (Malkinson 2010) was used over 5 months and a follow-up session, and will be explained through a case study of a mother with a toddler, who had recently experienced a traumatic foetal anomaly termination and was considering another child. The loss was overwelming. The therapy also included a mindfulness approach, (Cacciatore 2012) to effect change in thinking and interpretation, feelings and behaviour, and to facilitate the attachment and bonding with her children.

Results

Profound changes in thinking, enabled feelings of peace and acceptance and a renewed sense of competence and joy in her mothering abilities and the relationship with her toddler blossomed and hope was restored.

Discussion

Maternal distress during pregnancy influences behaviour with other children and can influence the subsequent birth outcome and relationship with the new baby and the other children.

Identifying these mothers early in pregnancy and working with CBT to adapt dysfunctional thinking can lead to better outcomes for mother and the infants.

Keywords

perinatal loss; prolonged grief; cognitive behavioral therapy

References

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Botha, A. (2009). Last time technique. Auckland NZ. lifechangenz@hotmail.com

Cacciatore, J., & Flint, M., (2012). ATTEND: Toward a mindfulness-based bereavement care model. Death Studies. 36:61-82.

Malkinson, R. (2010). Cognitive behavioural grief therapy: the ABC model of rational-emotion behaviour therapy. Psychological Topics 19 (2010), 2, 289-305.

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BIO

Rosie is an experienced perinatal distress, loss and grief counsellor in private practice, running workshops to improve knowledge, confidence and awareness. Her two living children came in between multiple childloss. Manager of PND support in Wellington, she later founded PADA - Perinatal Anxiety & Depression Aotearoa (NZ) in 2011. Rosie believes passionately in improving perinatal outcomes through delivering quality training to health and allied agencies working with new parents, through seminars and conferences, and works with key stakeholders to influence the implications of perinatal mental illness in maternity care and early parenting. 2015 Finalist Westpac NZ Women of Influence Awards

Abstract

Factors associated with care and protection issues for babies of mothers with an enduring mental illness

Background

We aim to identify potential psychosocial and psychiatric factors associated with statutory child protection involvement in pregnant women with severe mental illness (SMI) attending a specialist antenatal clinic Childbirth and Mental Illness (CAMI) in Perth, Western Australia,

Methods

A nested case control study conducted between December 2007 and July 2014 (n = 206), aged 18-44 who gave birth via the CAMI clinic. Descriptive statistics, one-way ANOVA, logistic regression and Chi Squared tests were conducted using SPSS version 22. Data were compared between those with Department of Child Protection and Family Support (DCPFS) involvement (n=64) and those that did not have DCPFS involvement (n=142).

Results

The overall sample represented a highly vulnerable population with nearly a quarter, 23.8% (n=49) had a psychiatric inpatient admission during pregnancy, and 32.5% (n= 67) of women having an immediate postnatal psychiatric admission. Of note, in the entire cohort, 29.7% (n=52) of women reported current Family Domestic Violence (FDV) with a significantly higher percentage in the child protection group (41.4% vs 23.9% p=0.017). Similarly, women in the DCPFS group had a higher percentage of current illicit substance abuse (57.8% vs 13.4% p<0.001). Statutory action occurred in 12.6% of women (n=26), of which 61.5% (n=16) of babies went into family placement and 38.5% (n=10) into foster care. Logistic regression revealed two significant predictors of statutory child protection: psychiatric admission during pregnancy (aOR 3.0 CI 1.10 to 8.32); substance use during pregnancy (aOR 8.4, CI 2.38 to 29.56).

Conclusion

Women with SMI have psychosocial risk factors contributing to DCPFS involvement, which may contribute to a higher proportion having DCPFS involvement of a statutory nature. Pre-birth assessment, planning and support early in the pregnancy may lead to better outcomes for these women and their infants.

Key Words
1. Psychosocial risk factors
2. Care and Protection
3. Specialist Antenatal clinic

2016 International Marce Society Conference

Abstract title: Building organisational capacity to manage perinatal mental health disorders in an early parenting support service.

Author: Melanie Marsh, RN, RM, CFHN, BaNsg, PostGradDipPIMH.

Ngala is one of WA's longest charitable organisations, providing early parenting support services for over 125 years.

Ngala's intensive residential service caters for approximately 1,400 families per year and is the only service of its type in WA. Every family receiving Ngala's services require a care pathway by which they can access the most appropriate parenting support, education and psychosocial care and support. Planning for perinatal mental health support has become increasingly relevant as there are growing numbers of clients with anxiety and depression (and the evident correlated impact on the infant) as evidenced by the Edinburgh Postnatal Depression Scale and psychosocial assessment.

It was recognised that to provide best practice in the provision of appropriate client-centred care, the service required enhanced rigour with policy, procedures, staff training and development and building networks with external specialised services.

Over a period of 2 years Ngala has conducted a series of audits and staff surveys to determine gaps in knowledge, skills and referral options. Following analysis of the information gathered, a working party was formed to develop a suite of policy and procedures to guide organisation-wide practices, along with the development of Ngala's Family Mental Health Framework. A comprehensive change management process was implemented to support the staff with these changes.

This presentation will discuss the methods, findings, challenges, pitfalls and successes of building capacity of the service to move from a purely early parenting focus to one that also encompasses psychosocial wellbeing and care pathways.

Reflective Functioning – parents of term and preterm infants' experiences

Meegan Kilcullen [1], Anne Swinbourne [1]
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1. Objective/Background: Secure attachment is characterised by the ability of a sensitive caregiver to mentalise their emotional and cognitive experience and help to develop the self-organisation of their child's own experiences (Fonagy, Gergely, Jurist & Target, 2002; Fonagy & Target, 1997). Premature birth and its associated changes to early parenting practice may interrupt the social and emotional interactions that underpin attachment. It may be that experience of preterm birth changes or impacts upon the parent's capacity for reflective functioning due to associated stressors and distress of early birth. Currently, there is limited research and literature regarding attachment in the neonatal context. This study explored parent's experiences of parenting in the child's first five years of life. Specifically, the study compared experiences of parents of term infants with parents of preterm infants.

2. Method: 161 parents completed a paper or online survey exploring reflective functioning. There were 122 term parents and 39 parents of preterm children under the age of 5 years who completed the survey.

3. Results: Overall, most term and preterm parents reported high levels of good reflective functioning. Preliminary results indicate no significant differences in reflective functioning between parents of term and preterm infants.

4. Conclusion/Discussion: Although this is a small study, results are encouraging for existing practices that support attachment in the neonatal context. It will be important to conduct further research in a larger sample to replicate these findings. These findings provide novel insights into our understanding of attachment in the neonatal context and will guide work practices of neonatal staff with a view to optimising outcomes for neonates and their families.

5. Key words: attachment; neonatal; reflective functioning

6. References

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CASE OF DISSOCIATIVE IDENTITY DISORDER AND PARENTAL FITNESS

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Despite improved progress being made in the diagnostic assessment and treatment of dissociative disorders, studies remained limited in this area, especially in regards to Dissociative Identity Disorder (DID). Even more so little is understood of people who are diagnosed with DID and their fitness to parent with particular focus on the impact on the mother-infant attachment and infant development as a consequence of exposure to a primary caregiver who has a severe dissociative condition.

A preliminary study conducted by Kluft (1987) demonstrated that despite a reasonable portion of mothers with DID were competent mothers, an alarming portion were compromised or impaired. Kluft revealed that despite best efforts interference with parenting related to symptoms of the disorder. Although Ellason and Ross (1997) in their 2 year follow up study, demonstrating that DID patients responding well to treatment, treatment often requires long-term psychotherapy. Infant early attachment and the foundations of their psychological health is considered to be paramount in their first several years of life and the conundrum lies whilst new mothers with DID require years of treatment with improved prognosis if they are able to attach integration compared to those who struggle with the integration process, where does this leave the infant and the potential impact on their growth and development?

This case study describes a mother, Jeanette, who presented for diagnostic clarification to a Mother Baby Unit at a metropolitan hospital and details not only her assessment leading to her diagnosis of DID but also the challenges in regards to the management plan when considering the infant's physical and psychological health and how it was also paramount to the overall treatment.

In this case of Jeanette, it was deemed that her fitness to parent was compromised and interventions were required to assist her with the parenting role.

Collaborating to Increase Education and Awareness About Perinatal Mood and Anxiety Disorders

Tara Petty[1], Megan Hoople[1], Renee Slemmer[1], Sonia Murdock[2], Kimberly Bell, Ph.D.[3,4], and Dr. Kim Zittel-Barr, Ph.D., ACSW, LMSW[1].
1 Buffalo State College, Buffalo, NY
2 The Postpartum Resource Center of NY Inc, West Islip, NY
3 Hanna Perkins Child Development Center, Shaker Heights, OH
4 Case Western University Medical School, Cleveland, OH

Objectives/Background: Nearly 30% of women experience PMADs (Fairbrother, et al., 2015). PMAD care is complex involving minimal medical/mental health education in schools, minimal referral resources, limited screening, parental reluctance to discuss mental health changes and medication refusal (Zittel, 2010). In addition, there are no mandates to screen men. Early screening, diagnosis, and treatment can help prevent complications for parents as well as long term consequences for the children. This presentation will describe how a non-profit agency(NY), college(NY), university(OH) and care providers collaborated(NY/OH) to improve access-to-care.

Methods: The collaboration described above formed a Task-Force of 51 providers, educators and students. Task-Force members invited over 200 medical/mental health students/educators, legislators, insurance representatives, and PMAD survivors to a free conference PMAD documentary/panel discussion where 23 local agencies tabled informative resources. Conference attendees answered a voluntary pre-test/post-test survey upon registration. Surveys were collected by Task Force students upon exiting.

Results: Expected results: increased PMAD knowledge, access to PMAD screening tools, and community-based referral options (conference date:4/15/2016).

Conclusion/Discussion: Encouraging communities to provide similar events will improve access-to-care and community awareness.

Key words: community awareness, perinatal mood and anxiety disorders, mental health education

References

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Zittel, K. (2010). *Postpartum mood disorders: A guide for medical, mental health and other support providers.* NASW Press: NY.

Are mood, anxiety and breastfeeding disorders associate with assisted reproduction techniques (ART)? A preliminary study

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2. Università "La Sapienza", Rome, Italy
3. Università Cattolica Del Sacro Cuore, Rome, Italy

Introduction. This is a prospective observational study. The aim of the study is to measure the levels of anxiety, post partum depression and breastfeeding disorders in women who have made assisted reproduction techniques (ART) compared to a group of women who have had a physiological spontaneous pregnancy.

Materials and methods. Patients were recruited from U.O.C. of the University Hospital "A. Gemelli" in Rome, from July 2015 to March 2016. We have selected 60 women divided in: the study group composed of 30 women who have undergone ART, and the control group composed of 30 women who have had a spontaneous pregnancy. The inclusion criteria were: italian nationality, first single or twin pregnancy, term pregnancy, vaginal birth or caesarean selection. The exclusion criteria were: single women, foreign nationality, previous pregnancy and presence of maternal or foetal pathology.
In the second or third day after childbirth, all the women were tested with a semi-structured interview, with the aim of having information about their family and medical history, and with psychological tests (self-report: EPDS and STA-Y) to investigate postpartum depression and anxiety disorders. All women were recalled for monitoring breastfeeding at three months after the child's birth.

Results. Anxiety levels measured by the STAI- Y tests do not differ between the study and the control group. About the EPDS test, 40% (n.12) of the study group presents a score> 12 vs 13% (n. 4) of the control group.
Only the 27% (n.8) of the study group continued to breastfeed until the third month after the child's birth vs 50% (n.15) of the control group.

Conclusions. The study group had a greater tendency to develop postpartum depression and to stop breastfeeding than the control group, no differences were found about anxiety in the two groups.
The depression have a negative disturbance on the mother-baby relationship, one of the indicators is breastfeeding. Further studies are needed to validate this hypothesis our proposal is to extend the sample and to integrate the work with an evaluation of sleep disorders in post partum, through polysomnography and specific tests for these disorders, with the aim of specifying the study, improve results and exclude collaterally disturbing factors which may limit the study began.

The Development of Perinatal Mental Health Care in Japan an update

～Apprenticeships with support from the UK ～

Keiko Yoshida (Department of Child Psychiatry, Kyushu University Hospital)

Routine physical checks have been carried out on Japanese mothers and babies since 1965 but mental health was first monitored in a study funded by the Japanese Ministry of Health in 1992. The work revealed an incidence of postnatal depression of 12% in the general population (Yoshida et al 1997) and 17% in women with physical complications of pregnancy (Yamashita et al, 2000).

The first community study, on health visitors' caseloads, was carried at the Health Centre in 1998. The results showed that 28% of mothers who had health visitor's support experienced depression within 12 months of the birth (Ueda et al, 2006).

A nation-wide training programme for health visitors and midwives was introduced using three simple questionnaires to measure biopsychosocial vulnerabilities, screen for depression and detect failures of maternal bonding. This survey found that 13.9% of mothers (N=3370) were depressed. Maternal bonding failures were predicted by the mother's feeling towards her infant at the early postnatal stage.

In 2015 the Japanese Ministry of Health and Labour announced an intensive programme to protect infants from abuse. Obstetricians and midwives will carry out screening and provide primary emotional support to at-risk pregnant women.

Title: Evaluating expressive writing to improve postpartum health: A randomized controlled trial

Susan Ayers[1]; Rosalind Crawley[2]; Susan Button[3]; Alexandra Thornton[1]; Andy Field[4]; Suzanne Lee[2]; Andrew Eagle[5]; Robert Bradley[6]; Donna Moore[2], Gill Gyte[7]; Helen Smith[8]

[1] Centre for Maternal and Child Health Research, City University London, UK
[2] Department of Psychology, University of Sunderland, Sunderland, UK
[3] Department of Adult Nursing and Paramedic Science, University of Greenwich, London, UK
[4] School of Psychology, University of Sussex, Brighton, UK
[5] Central and North West London NHS Foundation Trust, London, UK
[6] Brighton and Sussex University Hospital NHS Trust, Brighton, UK
[7] National Childbirth Trust, London, UK
[8] Division of Public Health and Primary Care, Brighton and Sussex Medical School, Brighton, UK

Objectives/Background: Evidence on effective universal self-help interventions to improve women's wellbeing after birth is needed (NICE, 2014). Writing about personal thoughts and feelings through expressive writing improves physical and psychological health in many groups (Frattaroli, 2006) so may help after birth. There is some evidence that expressive writing may be beneficial to women after birth but there is need for further investigation (Peeler et al., 2013).

Methods: Six weeks after birth 850 women were randomly allocated to one of three groups: 'expressive writing', 'control writing' or 'treatment as usual'. Psychological and physical health was measured at baseline, one month and six months. After baseline measures the expressive writing group wrote about something they were finding stressful; the control writing group wrote descriptively about a room.

Results: Women rated their stress as significantly lower after writing expressively. However, women in the three groups did not differ in health outcomes at one and six months. Overall, women's physical health improved over time, mental health did not change, and mental health related quality of life worsened. Threshold analysis suggested a trend for women with poor mental health at baseline to benefit more from expressive writing but this was not significant.

Conclusion/Discussion: Expressive writing does not appear to be effective as a universal intervention for improving postnatal health. However, further research is needed to examine its efficacy as a targeted intervention for women with poor mental health.

Keywords: expressive writing, postpartum mood, quality of life

References

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Patterns of perinatal depression and treatment from pregnancy to five years postpartum

1. detail the prevalence and correlates of depression from early pregnancy to 5 years following birth
2. understand the patterns of depression from early pregnancy to 5 years following birth
3. describe treatment status and effects on depression from early pregnancy to 5 years following birth

Keywords: Depression, pregnancy, postnatal

Background: Maternal mental health is critical to healthy prenatal and postnatal development.

Objective: Our objective was to describe the patterns of depression and treatment status from early pregnancy to 5 years following.

Methods: Descriptive and GEE modelling statistics were used to evaluate data from early and late pregnancy, early postpartum, 3 years and 5 years later in 646 women in Saskatoon, Canada. Women who scored $\geq$12 on the Edinburgh Postnatal Depression Scale (depressed) were referred for treatment.

Results: The unadjusted prevalence of depression in early pregnancy was 14%, late pregnancy 11.5%, 9.8% in early postpartum, 3 years postpartum was 5.6%, and 6.5% at 5 years. Seventeen percent of women depressed antenatal continued to be depressed 5 years later. All psychosocial factors measured -- history of depression, mood instability, lack of social support, relationship problems, worry, and stress heighten depression scores.

Discussion: The number of participants in treatment, either counselling and/or psychotropic medication, was increased in late pregnancy (50%, n=323) and 58% in postpartum, decreasing over time to 9% at 3 years and 3% at 5 years, coincidentally when the depression trend increased. Despite treatment, 21.4% of women who were depressed in early pregnancy and 27.9% who were depressed in late pregnancy continued to experience depression in postpartum. Depression scores decreased significantly over time in women who received counselling, in depressed and non-depressed groups. Counselling effects remained significant when we adjusted for psychiatric medication use, and sociodemographic status.

Conclusion: Depression affects the entire family; increased understanding of the patterns and nature of perinatal depression and treatment is essential to maternal mental and family health.

References[1, 2]

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2. Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. British Journal of Psychiatry. 1987;150:782-6.

In-Conference Workshop

Title of Abstract: Behavioral Health Integration in Women's Care: The Future of Integrated Care in America.

Presenter Details: Lead organizer: KC Lomonaco, Psy.D.

Co-organizer: Lies van Bekkum, Psy.D.; Camille Hoffman, MD

Biography:

M. Camille Hoffman, MD, MSCS;[1,2] Kimberly C Lomonaco-Haycraft, PsyD;[3] Alison Lieberman, PsyD;[3] Lies van Bekkum, PsyD;[3] Lisa McGloin, MD;[3] Jennifer Grote, PsyD;[3] Jennifer Hyer, MD;[1] Kelly Stainback-Tracy, MPH, IMH-E[4]. (2016). Implementation of an Integrated Perinatal Mental Health Program in a Federally Qualified Health Center, a National Model of Perinatal Care in Vulnerable Populations. Upcoming publication Colorado Journal of Psychiatry: Denver Health Edition (summer 2016)

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Lomonaco, KC (2016). Health Psychology: The Future of Psychology? Presentation at The Graduate School of Professional Psychology., University of Denver, Denver CO.

Lomonaco, KC (2015). Integrated Care in Medical Settings. Annual presentation at Denver Health and Hospitals Pre-Doctoral Internship orientation.

Lomonaco, KC (2015). LGBT issues in integrated primary care. Annual presentation to pre-doctoral residents in training programs across Washington State.

Objectives and expected outcomes:

1) Be able to describe US models of integrated behavioral health care
2) Be able to detail why women's care IS primary care
3) Understand and detail the benefits of immediate intervention in the management of perinatal and postpartum mental health concerns.

Key words: Integration; Holistic Wellness; America

The US lags behind many nations in the identification and management of maternal mental illness. On the forefront of innovation of care in the US is the Integrated Primary Care Model, a model by which

individuals can have both their medical and mental health needs met in one visit. The integrated primary care program at Denver Health is a nationally recognized innovator and leader in this model of care. Integrated Primary Care in the US began as a means of addressing the vast need for both mental and physical health care. As many Americans seek support from their primary care providers, an integrated model reduces the stigma related to receiving mental health care. Evidence has grown that the perinatal environment is essential to the development of the fetus and early screening, treatment, and support becomes more essential to familial and intergenerational health. Integrated Behavioral Care, through screening and treatment, can help negate the issues that may arise for mom and baby when mood, anxiety, trauma, substance abuse, and stress in pregnancy go untreated. When psychological care is available in clinic during the OB and postpartum visits the screening is more effective, the care more accessible, and the results immediate. The expansion project at Denver Health has focused on providing immediate screening and therapeutic services to all women's care clinics. Behavioral health providers located in the Women's care clinics are available for consults from medical providers, immediate evaluation, treatment, referral and follow up appointments. This presentation will focus on a description of this innovative program, ongoing data collection, the obstacles faced, and the benefits provided to both the clinics and the overall wellness of the moms and families served.

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The efficacy and safety of aripiprazole compared to other atypical antipsychotic in pregnant women with severe mental illness: a cohort study using linked electronic healthcare records

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Objectives/Background: There is very limited data on the safety or efficacy of aripiprazole in pregnancy. (1, 2) Aripiprazole has potential advantages over other atypical antipsychotics in terms of metabolic side effects such as obesity and diabetes-(3) which are linked to adverse obstetric and neonatal outcomes- so it is important to establish its relative safety in pregnancy, as it may be clinically useful for perinatal women at high risk of metabolic complications.

Methods: This study is using linked anonymized psychiatric, maternity and neonatal routine healthcare data. The maternal sample was identified from a large electronic mental health case register in South London (the Clinical Records Interactive System- CRIS). CRIS includes records for all patients treated by South London and Maudsley NHS Foundation Trust (SLAM); a large psychiatric provider with specialist inpatient and community perinatal services. Psychiatric data were obtained from CRIS- which includes both structured data and rich clinical data in free text fields. CRIS information has been extended through a suite of natural language processing (NLP) information extraction applications using General Architecture for Text Engineering (GATE) software, to derive information from free text on a range of constructs including medication and adherence. Maternity and neonatal data were obtained from two linked clinical datasets (Hospital Episode Statistics (HES) and BadgerNet respectively). We included women who were under the care of psychiatric services in the year before delivery. We are comparing three groups: (a) women who used aripiprazole in pregnancy; (b) women who used other second generation antipsychotics (SGAs) in pregnancy; (c) women who used aripirazole or other SGAs in the year before pregnancy but not during pregnancy. We are comparing efficacy and safety in the three groups above using propensity score methods- to take into account baseline clinical and socio-demographic differences.

Results, Conclusions & Discussion: to be presented at conference

3 key words: Aripirazole, pregnancy, antipsychotics

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Associations between maternal-foetal attachment and infant developmental outcomes: A systematic review

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Objectives/Background

Infant developmental outcomes may be influenced by a range of prenatal maternal characteristics. While there is some evidence to suggest that maternal-foetal attachment is associated with infant developmental outcomes, there is a need to systematically review and synthesise the evidence to guide future research and clinical practice.

Methods

Five electronic databases were systematically scanned. Key journals and reference lists were hand-searched. Papers were included if: 1) pregnant women were assessed for maternal-foetal attachment; 2) the infants were later assessed, under two years old, for any developmental outcome (e.g., social-emotional, cognition, motor, language, adaptive behaviour); and 3) they were published in English. Two independent reviewers used the STROBE checklist to appraise the quality of each paper.

Results

Of the 955 papers identified, eight were included in the review, with four of these being of low quality (<60%) based on the STROBE. The developmental domains examined included: infant temperament (n=5), adaptive behaviour (e.g., colic, sleep) (n=2), and milestone attainment (n=1). While there is some evidence to suggest that lower maternal-foetal attachment is related to suboptimal developmental outcomes, more research is required.

Conclusion/Discussion

This review highlights the potential association between maternal-foetal attachment and a range of infant developmental outcomes. This supports provision of care during the antenatal period to increase maternal-foetal attachment and promote infant development in the long-term. Recommendations for future research are also discussed.

Three key words

Key words: Maternal-foetal attachment, infant, development

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PRESENTER 5: Georgina M Chambers - ~ 20 + 5 minutes

What has been the impact of the National Perinatal Depression Initiative (NPDI) on Medicare and hospital service use?

Georgina M Chambers[1], Wang Sheng Lee[2], Cathy Mihalopoulos[2],
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[2] *Deakin University, Melbourne, Australia*

Background: In 2008 the Australian Department of Health and Aging introduced the National Perinatal Depression Initiative (NPDI). The aim of the current presentation is to describe two studies that assessed the impact of the NPDI on i) access to mental health (MH) Medicare services (GPs, psychologists and psychiatrists) and ii) inpatient hospital admissions for women giving birth in Australia.

Methods: Study 1) A retrospective cohort study using difference-in-difference analytical methods to isolate the effect of the NPDI on rates of MH Medicare services for women giving birth compared to those who did not give birth between 2006-2010. Study 2) Using hospital admission data on all births in NSW and WA during the study window a quasi-experimental design was used to assess rates of MH-related hospitalisations before and after the NPDI introduction.

Results: Study 1) The NPDI significantly increased access in subpopulations of women, particularly those aged under 25 and over 34 years living in major cities. However, an overall increase in all groups was not found. Study 2) Based on our preferred control group, we found a small negative statistically significant impact of the NPDI on MH-related hospitalisations.

Conclusion: The NPDI appears to have increased access to Medicare funded services for some subgroups of women and resulted in a small reduction in MH related hospitalizations for perinatal women. These findings suggest that women are perhaps accessing more care in the community, resulting in less severe disorders requiring hospitalisation.

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Antenatal common mental disorders, suicidality and associated risk factors: a cross-sectional survey from a socially adverse setting, Cape Town

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Background: Diagnostic prevalence studies conducted in South Africa have reported rates of perinatal depression between 34-47% (1,2). The study aimed to determine the diagnostic prevalence of common mental disorders and associated risk factors in pregnant women attending for antenatal care in a socially adverse setting in Cape Town.
Methods: At their initial visit, 376 adult women attending the MOU were recruited. Socio-demographic were collected. Mental health disorders were diagnosed using the Expanded Mini-International Neuropsychiatric Interview Version 5.0.0. Descriptive statistics were used to describe the characteristics of the study population. Bivariate associations were used to explore associations between risk factors and diagnosed mental health disorders. Multivariable analysis was performed to obtain adjusted odd ratios among dependent and independent variables. Statistical significance was established at $p \leq 0.05$.
Results: The prevalence results were: 22% for Major Depressive Episode (MDE), 23% for any anxiety disorder, 18% for current alcohol abuse and other drugs use and 9% for high and moderate suicidal risk level. There were high levels of co-morbidity. Older age, higher education levels, current employment, cohabitation with partner, intended pregnancy, and increased perceived support are protective factors against mental health disorders. Increased odds for CMDs include food insecurity, not having a partner, experiencing difficult life events, intimate partner violence, not being pleased with pregnancy, and a history of mental health problems.
Conclusion: There is a high prevalence of common mental health disorders among pregnant women in Hanover Park, many of them co-morbid. These disorders are associated with multiple risk factors. Maternal mental health services should be integrated into routine obstetric care.

Key words: common mental disorders, antenatal, poverty

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Mental Health E-Screening during Pregnancy: Risks and Benefits

Dawn Kingston[1], Sheila McDonald[1], Marie-Paule Austin[2], Paula Harvalik[1],Sander Veldhuyzen vanZanten[3], Rebecca Giallo[4], Gerri Lasiuk[5], Glenda McQueen[1], Wendy Sword[6], Lydia Vermeyden[1], Anne Biringer[7]

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Background: Mental health screening as part of routine prenatal care is recommended by international guidelines.[1,2] However, barriers in primary care practices challenge its routine implementation, resulting in <20% of North American prenatal care providers conducting screening. E-screening may address such barriers to support routine prenatal mental health screening.

Objectives: One objective of this trial was to determine whether benefits and risks of disclosure of mental health concerns differ between paper-based and e-screening.

Methods: This RCT used computer-generated randomization (1:1) to allocate pregnant women to e-screening or paper-based screening using the ALPHA and EPDS. English-speaking pregnant women were recruited through obstetrical clinics and prenatal classes in Alberta and Ontario (Canada). Following randomization, women completed screening tools and a baseline questionnaire, including the Disclosure Expectations Scale (DES). Blinded research assistants conducted diagnostic interviews one week after recruitment. [Protocol: **http://trialsjournal.biomedcentral.com/articles/10.1186/1745-6215-15-3].**

Results: Among the 636 participants, 23.3% indicated they would feel moderately/very vulnerable disclosing mental health information to their prenatal doctor/nurse and 53.3% indicated it would be moderately/very helpful to talk to them about mental health concerns. No significant differences between groups were found in the mean levels of risk (t [629]=.22;p=.82) or benefit (t [629]=.19;p=.85) of disclosure of mental health information to the provider.

Conclusion: Results indicate that women find the risks and benefits of mental health screening similar, whether done via the more traditional approach of paper-and-pencil or e-screening.

Key words: e-screening; pregnancy; mental health

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Title: Conceptualising and measuring PTSD after birth

Susan Ayers[1]; Daniel B. Wright[2], Alexandra Thornton[1]

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[2] ACT, Austin, Texas, USA

Objectives/Background: Evidence suggests 3.17% of women report post-traumatic stress disorder (PTSD) after birth (Grekin & O'Hara, 2014). Current prevalence rates are predominantly based on questionnaire measures of PTSD based on DSM-IV criteria (APA, 2013). Changes to PTSD diagnostic criteria in DSM-5 raise issues about how to best conceptualise and measure PTSD after birth. There are also specific characteristics of labour, birth and the postpartum period that might influence certain symptom measures and therefore estimates of PTSD prevalence (Ayers, Wright & Ford, 2015; Boorman et al., 2014). This talk outlines some of the difficulties conceptualising and measuring postpartum PTSD and presents the development of a questionnaire measure of postpartum PTSD based on DSM-5 criteria.

Methods: A 31-item questionnaire was developed on the basis of DSM-5 criteria and reviewed by perinatal researchers (n=9) and postpartum women (n=8). The questionnaire was then completed online by 950 women who had given birth in the previous 12 months.

Results: Analysis of individual subscales showed that symptom subscales of intrusions, avoidance, negative cognitions, and hyperarousal were coherent. Subscales had good internal reliability and were positively correlated with each other. Factor analysis of the total scale identified two factors of (1) intrusions and avoidance and (2) hyperarousal and anhedonia. Items from the new DSM-5 subscale of negative cognitions loaded on different factors, and two items did not load on any factor.

Conclusion/Discussion: The City Birth Trauma Scale (City BiTS) provides a new measure of PTSD following events related to pregnancy, birth or immediately postpartum that is based on DSM-5 criteria. Further research is needed on the relevance of the new DSM-5 symptoms of negative cognitions.

Keywords: PTSD, measurement, questionnaire

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ABSTRACT

I have co-created 2 films, appeared in a third and have commissioned and supported the production of a play about perinatal mental health crisis. These works have been widely viewed nationally and internationally, have been used as a resource for NHS Choices, the Royal Colleges of Psychiatrists, Obstetrics and Gynaecology and General Practise. They challenge perceptions about mothers with mental health problems, have strong recovery themes, and all feature the stories as told by the woman and/or family member. They are beautifully crafted, engaging, challenging and memorable. My first film "Head up Heart Strong" has been downloaded more than 28000 times in 60 countries.

Objectives

1. **To demonstrate how the use of the Arts can be effective in training of healthcare professionals**
2. **To demonstrate how collaborating with creative partners and women and families to co-create art projects can be an empowering and positive experience for all who participate.**
3. **To gain a deeper understanding of the process, challenges and responsibilities of co-creating projects.**
4. **In a small group exercise delegates will produce and share a vision for an art project with the wider group**

Expected outcomes

Using an evaluative questionnaire at the beginning and end of the workshop I will demonstrate that

1. **The participants have an increased knowledge in the processes, challenges and responsibilities for a clinician embarking on a co-created art project**
2. **The participants report greater understanding of the potential of arts collaboration projects**
3. **The participants feel more likely to consider engaging in a creative art project**
4. **The participants gain increased knowledge about the impact of working on a clinical/ arts collaboration on all partners.**

Key words

1. **Education**
2. **Stigma**
3. **Recovery**

References

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Workshop: Maternal Comprehensive Health and Treatment (MCHAT) is a program designed to deliver care throughout pregnancy, delivery and post-partum to patients with Substance Abuse (SA). The goal of the work shop is to present, discuss and outline treatment programs for this special patient population.

We will discuss Addiction Medicine screening tools for prenatal use and abuse of drugs and medications and the role of universal screening, the goal being to identify at risk patients and families. We will also present various protocols for in-patient and outpatient based therapies, the role of group therapy, 12 step programs such as AA or NA (Narcotics Anonymous), Moms groups, prenatal care and prenatal fetal testing. Finally we will discuss a maintenance program which will be lasting and facilitate full recovery.

The work shop will assist the provider in understanding the advantages of Methadone vs. Buprenorphine/naloxone maintenance therapy, how to score an adult patient in withdrawal, how to score a newborn in neonatal withdrawal (NAS). We will also discuss various other substances commonly abused during pregnancy such as Marijuana, Amphetamines and Alcohol.

Lower Allopregnanolone in Pregnancy Predicts Postpartum Depression

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Background. Current evidence is mixed on the role of progesterone and its metabolites in perinatal mood and anxiety disorders.

Methods. Progesterone (P4) and allopregnanolone (ALLO) levels were measured by ELISA in 61 pregnant women with mood disorders at four time points across pregnancy and postpartum. Postpartum depression (PPD) was identified by clinician interview (DSM-IV criteria). Severity of symptoms was measured by the Inventory of Depressive Symptomatology (IDS-SR) and its anxiety subscale (IDS-SR-ANX). PPD biomarkers were previously identified by DNA methylation changes at two loci (HP1BP3 and TTC9B). We used generalized linear mixed effects models with random intercept to estimate the relationship between hormones and depression score (or clinical depression) while accounting for within-person correlation of outcomes over time.

Results. Women who met DSM-IV criteria for PPD had lower levels of ALLO in pregnancy (2.60, 95% CI 2.19-3.01) when compared to women who did not meet criteria (3.50, 95% CI 2.80-4.20) (p=.022). Similarly, those with higher levels of pregnancy ALLO had lower odds of moderate to severe depression (IDS-SR>39) (p=.026). These effects were driven by women who were not depressed in

pregnancy but later developed PPD. Higher levels of progesterone in pregnancy predicted lower anxiety in the postpartum, as measured by scores on IDS-SR (ANX) (β = -0.055, p=.018). In addition, HP1B3 methylation status was significantly associated with the change in allopregnanolone across pregnancy, and this association was driven by women who antenatally euthymic (p =.028). *Conclusions/Discussion.* Our principal finding was a significant association between allopregnanolone levels in pregnancy and the later development of PPD. Our findings differ from previous research, possibly because we measured hormones at several points in pregnancy and in a population with high rates of clinician-assessed depression at most points during the study.

Keyword: postpartum depression, reproductive hormones, allopregnanolone

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Glimmers of Hope: Updates in US Perinatal Screening Guidelines and Implications for Treatment

Margaret Howard, PhD[12], Cynthia L. Battle, PhD[123] and Jessica Pineda, MD[2]

Objectives/Background:

The American Academy of Obstetricians and Gynecologists (ACOG) and the American Academy of Pediatrics (AAP) recommend screening of perinatal women for depression[1] [2]. However, there have been no broad-based national screening recommendations until very recently. In January 2016 the United States Preventive Services Task Force (USPSTF), a federally appointed committee, issued their findings which resulted in a recommendation that all pregnant and postpartum women be routinely screened for depression[3].

Methods:

We review the history of perinatal depression screening guidelines and initiatives in the United States, and specifically we will discuss how the recent USPSTF recommendations build upon the current ACOG and AAP guidelines for screening pregnant and postpartum women for depression and other mental health conditions. .

Results:

Although published recommendations from major professional organizations have had important influence on clinical practice, the new USPSTF recommendations are likely to have significantly broader influence, with great potential to increase rates of screening and detection of perinatal depression among US women. The Task Force noted that there is now convincing evidence that screening pregnant and postpartum women results in higher rates of detection and coupled with access to treatment results in improved clinical outcomes.

Conclusion/Discussion:

The USPSTF recommendations signal, for the first time in the United States, broad national recognition that the detection of depression in peripartum women is necessary for improved clinical outcomes. It provides for the coverage of screening costs under the Federal Affordable Care Act. These recommendations should lead to not only more universal screening among all health care providers, but also the future development of more specialized treatment programs throughout the nation.

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Key Words: Screening, Perinatal Depression, US Public Policy

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Pharmacological Lactation Suppression with D_2 Receptor Agonists and Risk of Postpartum Psychosis: A Systematic Review

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Abstract

Objectives/Background: It has been suggested that D_2 receptor agonists commonly used postpartum for the physiological suppression of lactation, such as bromocriptine and cabergoline, may increase the risk of illness onset or relapse in women where there is a predisposition for, or history of schizophrenia, bipolar disorder or postpartum psychosis. This is based on two lines of reasoning: current models of psychosis assume episodes are triggered by dysregulation of brain dopaminergic activity and treated by medications that universally have D_2 receptor antagonist properties; and limited research suggesting these agents may be associated with psychotic episodes in vulnerable individuals outside of the postpartum period.

The aim of the study was to examine whether D_2 agonists trigger psychosis in previously well mothers, or psychotic relapse or exacerbation of symptoms in mothers with known psychotic illnesses, when used to suppress lactation during the early postpartum period.

Methods: A systematic review of the literature was undertaken of electronic databases including: MEDLINE, EMBASE and PsychINFO from 1950 to 2015 using the keywords lactation suppression, ablactation, D2 receptor agonist, postpartum and psychosis.

Results: 8 case reports, 3 case series and a pharmacovigilance survey were identified.

Conclusion/Discussion: Whilst D_2 receptor agonists appear to increase the risk of triggering psychosis in previously well mothers and those previously diagnosed with schizophrenia, bipolar disorder and postpartum psychosis bromocriptine appears to pose a much greater risk than cabergoline. When considering the use of pharmacological agents to suppress lactation physicians should carefully screen patients for a history of psychosis and consider alternatives in order to moderate this risk.

Keywords: lactation suppression, D_2 receptor agonists, psychosis.

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Nordic Marcé symposium: Use of antidepressants in pregnancy, fear of childbirth, birth experience and outcome for mother and child; results from unique Nordic data sources

Chair: Dr. Signe Karen Dørheim
(MD, PhD, President Nordic Marcé, Stavanger University Hospital, sdhy@sus.no)

Chair persons summary:

Objectives: Pregnancy is a time where depression and anxiety may start or be aggravated. Women may fear delivery to such an extent that it influences both the woman's mental health, use of medications, as well as decisions regarding type of delivery. A negative birth experience may furthermore precipitate postpartum depression. The objective of this symposium is to present current research in the Nordic countries highlighting these issues.

Methods: The Nordic countries have a unique access to population-based health data, through the use of personal ID numbers and national registers, providing a basis for the registered-based and longitudinal studies presented here.

Results: A longitudinal, population-based study of 1789 Norwegian women will show demographic and psychosocial characteristics associated with fear of childbirth and the relative importance of such fear as a predictor of elective caesarean section. Anxiety and depression during pregnancy may need treatment by antidepressants, but anxiety about how this influences the child may restrict the use. A Danish register-based cohort study including 48,509 liveborn singletons whose mother used any antidepressant prior to conception in Denmark will provide unique new data. The study compared risks of overall psychiatric disorder and autism specter disorder among children whose mothers used antidepressants during pregnancy to children born to mothers not taking antidepressants during pregnancy. Cognitive behavioral therapy is another way of approaching fear of childbirth, and preliminary data from a randomized controlled, longitudinal study among 259 pregnant women in Sweden will be presented. Finally, fear of childbirth may result in a negative birth experience, and this may be a risk factor for postnatal depression. We will present a review of 15 studies examining the association between the birth experience and postpartum depression.

Discussion
After four individual presentations, there will be a panel-discussion among the presenters summing up the implications of these studies.

Presentations

1. **Susan Garthus-Niegel**
   Fear of childbirth and preference for or actual delivery by elective cesarean section: A population based study.
2. **Trine Munk-Olsen**
   Antidepressant use during pregnancy and psychiatric disorders in the offspring
3. **Christine Rupertsson**
   A randomized controlled study during pregnancy comparing internet-based cognitive behavioral therapy and counseling by standard care for fear of birth.
4. **Ewa Andersson**
   The birth experience and women's postpartum depression: A systematic review

Abstracts:

1: Fear of childbirth and preference for or actual delivery by elective cesarean section: A population based study.

Hege Therese Størksen, PhD[1,2]; Susan Garthus-Niegel, PhD[3,4]; Samantha S. Adams, PhD MD[5]; Siri Vangen, PhD MD[6,7]; Prof. Malin Eberhard-Gran, PhD MD[1,2,3]

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This population-based cohort study aimed to investigate the demographic and psychosocial characteristics associated with fear of childbirth and the relative importance of such fear as a predictor of elective caesarean section.
A sample of 1789 women from the Akershus Birth Cohort in Norway provided data from 17 and 32 weeks of pregnancy, around birth and 8 weeks postpartum.
Eight percent of the women reported fear of delivery. Using multivariable logistic regression models, a previous negative overall birth experience exerted the strongest impact on fear of childbirth, followed by impaired mental health and poor social support. Fear of childbirth was strongly associated with a preference for elective caesarean section whereas the association of fear with performance of caesarean delivery was weaker. The vast majority of women with fear of childbirth did not, however, receive a caesarean section. By contrast, a previous negative overall birth experience was highly predictive of elective caesarean section and few women without such experiences did request caesarean section.
Results suggest that women with fear of childbirth may have identifiable vulnerability characteristics. Results also emphasize the need to focus on the subjective experience of the birth to prevent fear of childbirth and elective caesarean sections on maternal request.

2: Antidepressant use during pregnancy and psychiatric disorders in the offspring

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Background: Findings on the association between selective serotonin-reuptake inhibitors (SSRIs) use during pregnancy and offspring autism spectrum disorders (ASD) have been contradictory [1,2], and it is unknown whether prenatal exposure to SSRIs increase risk of other psychiatric disorders.

Methods: We conducted a register-based cohort study including 48,509 liveborn singletons whose mother used any antidepressant from 2 year to 1 month prior conception in Denmark during 1998–2012. We compared risks of overall psychiatric disorder and ASD specifically among children whose mothers used antidepressants during pregnancy to children born to mothers not taking antidepressants during pregnancy. Data was analyzed using cox proportional hazard models stratifying on propensity-score to control for the confounders, with Hazard Ratios as the main outcome measures.

Results: A total of 961 psychiatric disorder and 171 ASD cases were diagnosed in children exposed to antidepressants in utero. Preliminary results showed that children exposed to antidepressants during pregnancy had an increased risk of any type of psychiatric disorder, HR: 1.29 (95% CI: 1.19–1.40) and ASD, HR: 1.26 (95% CI: 1.04 –1.54) compared to non-exposed children. The risks consistently increased with increasing days of use: A 30-day increase in antidepressant use corresponded to a HR of 1.02 (95% CI: 1.01 – 1.03) for overall psychiatric disorder and 1.03 (95% CI: 1.01 – 1.04) for ASD.

Conclusion: We observed increased risks of all psychiatric disorders as well as ASD in children exposed to antidepressants in utero. The increased risk of psychiatric disorder is possibly attributable to the underlying indication of antidepressant use, rather than antidepressant use itself.

Key words: antidepressant, pregnancy, psychiatric disorder

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3: A randomized controlled study during pregnancy comparing internet-based cognitive behavioral therapy and counseling by standard care for fear of birth.

Rubertsson C Associate Professor Uppsala University, Sweden

Objectives: Fear of birth (FOB) is common during pregnancy, in the Nordic countries the reported prevalence of FOB among pregnant women ranges between 8 and 22% depending on the instrument of measurement and the chosen population [1–5]. Fear of birth (FOB) has been described as a sub-construct of anxiety and fits within the profile of psychological disorders. FOB is an international concern that requires more evidence regarding optimal treatment. The aim of this study was to compare two treatments for FOB.

Methods: We performed a prospective randomized controlled trial with a multi-center design. Women were recruited at the ultrasound clinic in gestational week between 17-20. Women reporting FOB on the Fear of Birth Scale were randomized to either Standard Care (SC) with midwifery counseling or internet given cognitive behavioral therapy (iCBt) performed by psychologists.

Results: In total, 259 women have been randomized and received treatment. Analyses are ongoing and will be presented. The primary outcome measure is level of FOB measured with the Fear of Birth Scale one year after giving birth. Secondary outcome measures are level of FOB at 36 weeks of gestation and two months after birth, preferences for mode of birth, requests for elective cesarean sections, compliance and satisfaction with treatment, birth outcomes and costs.

Conclusion/Discussion: Women's overall emotional health is highly important for maternity care. This study will give knowledge about level of psychological distress and comorbidity such as anxiety and depression and levels of stress among women with FOB. An effective treatment for women with FOB may result in a better overall health and a reduction in cesarean sections for non-medical reasons. Evidence regarding treatment options of FOB may provide a choice for women, counseling with face-to-face treatment or by internet at a preferred time.

Keywords: Fear of birth, pregnancy, RCT

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4: The birth experience and women's postpartum depression: A systematic review

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Objective: Maternal postpartum depression confers strong risk for impaired child development. Little is known about the association between women's subjective birth experience and postpartum depression. The purpose was to systematically identify and review studies examining the association between the birth experience and postpartum depression.

Methods: a systematic search strategy was employed using the Matrix Method (Garrard, 2014) and guided by the PRISMA reporting process. Criteria included broad search terms, English language, and publication years 2000-2015. The search revealed 1536 abstracts narrowed to full-text review of 112 studies.

Results: eleven of the fifteen studies meeting search criteria demonstrated a significant association between women's postpartum perspective of their birth experience and postpartum depression. Results show heterogeneity in birth experience instruments. Strength of evidence and potential for bias are discussed.

Conclusions: results suggest that a negative birth experience may contribute to an increased risk of postpartum depression. To promote a positive birth experience, even with complicated birth events, healthcare providers should provide supportive, nurturing care that promotes women's confidence, trust, respect, privacy, shared decision-making, and feeling of safety. Healthcare policy that promotes quality caregiving may reduce risk of postpartum depression.

Keywords:
Depression, Postpartum, Postnatal, Birth experience, Birth satisfaction, Systematic review

Peer supported Open Dialogue (POD) in Perinatal Mental Health Services

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BACKGROUND

Improved outcomes in first episode psychosis have been demonstrated from this model of care in Finland. An adapted version of Finnish Open Dialogue is being trialled in the UK and could incorporate perinatal mental health care in specialised services.

METHOD

Open Dialogue is a social intervention employing organisational and practice principles with adaptation to incorporate peer support (POD).

POD employs a social network perspective and some borrowed principles from family, systemic and narrative therapy. Evidenced techniques from crisis services such as the provision of immediate care, flexibly delivered for the convenience of the service user are also incorporated. Responsibility and psychological continuity are held by one team that includes a trained peer worker.

Mindfulness training allows toleration of the uncertainty of democratic meetings which form the basis for intervention. Agency is shifted to the service user and social network which the peer worker can help convene.

RESULTS

Improved outcomes have been demonstrated in symptom control and relapse, occupation, reduced neuroleptic use and hospitalisation in Finnish studies. Open Dialogue is also more cost-effective and clinically efficacious than other models of care. Peer support and service user engagement are significant elements contributing to outcomes.

CONCLUSIONS

POD would map neatly onto existing perinatal mental health services. A UK RCT is likely to be under way by the time of Marce in September, and a nested study located within the NELFT parent-infant perinatal mental health service may be included.

Key words: Open Dialogue, Peer support, Mindfulness

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The NELFT PPIMHS triage clinic
(Innovative solutions to increased birth rates not matched by increased resources in London)

Dr Nisha Shah, Dr Janet Obeney-Williams, Michelle Hayes

BACKGROUND The community perinatal mental health service in NE London (PPIMHS) has experienced an approximately 25% increase in birth rates and referrals in the last 3 years, without extra staffing to meet the needs of the population. Accreditation standards have become more stringent during this time. As a result, capacity is reduced, whilst we remain aware that pregnancy and postpartum are a critical time for women's mental health.
Despite this constraint, the service is considered a flagship community service in the UK.
METHOD: One trainee has been encouraged to pilot a triage clinic to address variability in referral quality. Instead of time consuming liaison with referrers, the clinic allows to directly acquire the information required to determine need and make a basic assessment of risk. Efficiency and effectiveness of the clinic are currently undergoing evaluation via clinical audit, including a review of attendance rates.
RESULT: with one day a week of trainee time, the service has benefited from rapid availability of short appointments, which result in identification of specialist care needs, or re-referral to primary care to follow NICE guidelines. It has also allowed timely risk assessments and avoidance of long waits for appointments.
CONCLUSIONS: This is a good example of innovative service development despite financial constraint. It was modeled on another such clinic observed by one of the authors elsewhere. Service development in perinatal services is often organic and locally driven though ideas for service improvement can be taken to other services with adaptation according to local needs and resources.

Key words: triage, risk assessment, reducing waiting times

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Antidepressant use during pregnancy and psychiatric disorders in the offspring

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Methods: A register-based cohort study including 48,509 liveborn singletons whose mother used any antidepressant from 2 year to 1 month prior conception in Denmark during 1998–2012. We compared risks of overall psychiatric disorder and ASD specifically among children whose mothers used antidepressants during pregnancy to children born to mothers not taking antidepressants during pregnancy. Analysis included cox proportional hazard models stratifying on propensity-score to control for confounders, with Hazard Ratios as the main outcome measures.
Results: A total of 961 psychiatric disorder and 171 ASD cases were diagnosed in children exposed to antidepressants in utero. Preliminary results showed that children exposed to antidepressants during pregnancy had an increased risk of any type of psychiatric disorder, HR: 1.29 (95% CI: 1.19–1.40) and ASD, HR: 1.26 (95% CI: 1.04 –1.54) compared to non-exposed children. The risks increased with increasing days of use: A 30-day increase in antidepressant use corresponded to a HR of 1.02 (95% CI: 1.01 – 1.03) for overall psychiatric disorder and 1.03 (95% CI: 1.01 – 1.04) for ASD.
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Depression and anxiety in the postpartum period and risk of bipolar disorder

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Abstract

Background: The first onset of an affective episode treated at inpatient psychiatric facilities in the early postpartum period can be a marker of bipolar disorder (1, 2), but it is unknown whether milder postpartum affective episodes are also indicators of underlying bipolarity.

Methods: We conducted a register-based cohort study in Denmark, and included parous women without psychiatric history who received a first-time prescription for an antidepressant during 1997–2012. We compared women with a first-time antidepressant prescription, which was our indicator of a first-onset affective disorder within one year postpartum (N = 7,877) to parous women with a first-time antidepressant prescription outside the postpartum period (N = 114,745).

Results: A total of 97 women with a first-onset affective episode during the postpartum period later received a diagnosis of bipolar disorder, and the risk of bipolar disorder among them was higher than that in women with a first-onset affective episode outside the postpartum period. Compared to antidepressant monotherapy outside the postpartum period, the risk of conversion to bipolar disorder for postpartum antidepressant monotherapy was 1.66 (95% confidence interval (CI): 1.12 – 2.48) and for antidepressant use postpartum combined with anxiolytics 10.15 (95% CI: 7.13 – 14.46).

Conclusion: The onset of affective disorders during the postpartum period can be a marker of underlying bipolarity. When antidepressant monotherapy is ineffective or the individual woman experiences changes in symptoms, health professionals should consider a possible bipolar spectrum disorder.

Key words:

Epidemiology, postpartum depression and anxiety, bipolar risks.

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Fear of childbirth and preference for or actual delivery by elective cesarean section: A population based study

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Background. This population-based cohort study aimed to investigate the demographic and psychosocial characteristics associated with fear of childbirth and the relative importance of such fear as a predictor of elective caesarean section.
Methods. A sample of 1789 women from the Akershus Birth Cohort in Norway provided data from 17 and 32 weeks of pregnancy, around birth and 8 weeks postpartum.
Results. Eight percent of the women reported fear of delivery. Using multivariable logistic regression models, a previous negative overall birth experience exerted the strongest impact on fear of childbirth, followed by impaired mental health and poor social support. Fear of childbirth was strongly associated with a preference for elective caesarean section whereas the association of fear with performance of caesarean delivery was weaker. The vast majority of women with fear of childbirth did not, however, receive a caesarean section. By contrast, a previous negative overall birth experience was highly predictive of elective caesarean section and few women without such experiences did request caesarean section.
Discussion. Results suggest that women with fear of childbirth may have identifiable vulnerability characteristics. Results also emphasize the need to focus on the subjective experience of the birth to prevent fear of childbirth and elective caesarean sections on maternal request.

Key words: Fear of childbirth, cesarean section, Akershus Birth Cohort

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A randomized controlled study during pregnacy comparing internet-based cognitive behavioral therapy and counseling by standard care for fear of birth.

Rubertsson C Associate Professor Uppsala University, Sweden

Objectives/Background

Fear of birth (FOB) is common during pregnancy, in the Nordic countries the reported prevalence of FOB among pregnant women ranges between 8 and 22% depending on the instrument of measurement and the chosen population [1–5]. Fear of birth (FOB) has been described as a sub-construct of anxiety and fits within the profile of psychological disorders. FOB is an international concern that requires more evidence regarding optimal treatment. The aim of this study was to compare two treatments for FOB.

Methods

We performed a prospective randomized controlled trial with a multi-center design. Women were recruited at the ultrasound clinic in gestational week between 17-20. Women reporting FOB on the Fear of Birth Scale were randomized to either Standard Care (SC) with midwifery counseling or internet given cognitive behavioral therapy (iCBt) performed by psychologists.

Results

In total, 259 women have been randomized and received treatment. Analyses are ongoing and will be presented. The primary outcome measure is level of FOB measured with the Fear of Birth Scale one year after giving birth. Secondary outcome measures are level of FOB at 36 weeks of gestation and two months after birth, preferences for mode of birth, requests for elective cesarean sections, compliance and satisfaction with treatment, birth outcomes and costs.

Conclusion/Discussion

Women's overall emotional health is highly important for maternity care. This study will give knowledge about level of psychological distress and comorbidity such as anxiety and depression and levels of stress among women with FOB. An effective treatment for women with FOB may result in a better overall health and a reduction in cesarean sections for non-medical reasons. Evidence regarding treatment options of FOB may provide a choice for women, counseling with face-to-face treatment or by internet at a preferred time.

Keywords: Fear of birth, pregnancy, RCT

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What was the NPDI funded to achieve and how was it to be evaluated: ideal vs. reality

Nicole Highet
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Background: In 2005 a large Australian screening study identified a 16% prevalence of perinatal depression with more than 30,000 families affected/annum. A National Plan for the implementation of a coordinated approach to perinatal mental health was then proposed with a view to reducing the significant personal, social and economic costs associated with unidentified and delayed treatment of perinatal mental health conditions.

Methods: In 2008, Australia's $85M National Perinatal Depression Initiative (NPDI) was established under a bi-partisan agreement, with matched funding from the Commonwealth and all State and territory Governments. Key outcomes of the 5-year initiative included the development of Clinical Practice Guidelines, training and education for health professionals to undertake screening and provide evidence-based treatments, health promotion activities and the dissemination of information to consumers and carers to raise awareness and understanding and promote help-seeking.

Results: Despite significant progress in the uptake of screening across jurisdictions, lack of resources and prioritization of the Initiative's evaluation makes it difficult to monitor and evaluate the scope of the Initiative and its impact. Whilst there are positive indicators of training and resources uptake, the degree and impact of screening remains unknown.

Conclusion: In the absence of a prospective, coordinated evaluation, the Partnership Grant – using population level administrative data- examined the impact that the Initiative had on the uptake of perinatal mental health care services. The key outcomes from these will be discussed. Further, considerations for ongoing monitoring and sustainability of the NPDI into the future will be outlined.

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An evaluation of interventions provided for women with acute severe perinatal mental disorders in England

Professor Louise M. Howard

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Category:

Key words: postnatal care; patient care; mother and baby units

Objectives/Background

The National Institute for Health and Care Excellence in England recommends development of, and research into, services for women with acute postnatal severe disorders. To date, there has been little systematic research on the effectiveness of Mother and Baby Units. We are therefore conducting a study to investigate the effectiveness of Mother and Baby Units compared with general psychiatric wards or Crisis Resolution Teams for acute severe postnatal disorders. This presentation presents data from our process evaluation survey of interventions provided by the three service types for mothers and their families.

Methods:

A cross-sectional survey of 37 Mental Health Trusts to examine the type of interventions available to women in contact with specialist Mother and Baby Units, general psychiatric wards or Crisis Resolution Teams. Senior staff across Mother and Baby Units (n=5), general psychiatric wards (n=188) and Crisis Resolution Teams (n=126) were asked to complete a structured questionnaire about the provision of the following interventions within their unit: (1) psychological, (2) infant-parent relationship, (3) support for partners/carers, (4) social.

Results:

Data will be presented on the types and availability of interventions provided by different specialist Mother and Baby Units in England and how these compare against the interventions provided by general acute wards and Crisis Resolution/Home Treatment teams with or without perinatal community teams.

Conclusion/Discussion:

The extent of interventions provided to mothers and their significant others differs substantially across the three service types. Implications for services and women will be discussed.

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DISCLOSURES:

- **Please list any financial supports**

This abstract summarises independent research funded by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research (PGfAR) Programme (Grant Reference Number: RP-PG-1210-12002). The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health

- **Are you aware of any conflict of interest? If yes, please explain.**

No

- **The submitter may leave a short message, if they wish, about their abstract or the results represented.**

N/A

• **Should the presentation be accepted, does the presenter require an invitation / acceptance letter to support any visa applications? PERMISSIONS All submitters will be required to respond to two permission questions:**

No invitation required.

• **Do you consent for your abstract being made available to conference delegates and published as proceedings?**

Yes

• **Do you consent to a copy of your PowerPoint presentation being made available to delegates?**

Yes

Symposium Title Mother-baby units (MBUs): new clinical and research reports from UK, France, India and USA

Chair Nine M-C Glangeaud-Freudenthal

Symposium chairperson summary :

Objectives of the symposium is to present new clinical reports and researches from data collected in Mother-bay units in different countries and to discuss best practices and effectiveness for joint parents-infant mental health care.

Methods are diverse: A process evaluation within a quasi-experimental cohort study investigating the nature of interventions provided for women with severe postnatal disorders by three service types for mothers and their families, including MBUs, home treatment teams and acute wards across England; A statistical analysis on French MBU data collection to assess demographic and perinatal variables related to (i) a mixed mood state in the mother (ii) the request for child foster-care; A validation study of a Scale-to-Rate-Maternal-Behaviour in MBU's patients in India; and finally an assessment of improvement of mental health care for women in a Mother-Baby-Psychiatric-Day-Hospital.

Results: Howard L.'s team presents the extent of interventions provided to mothers and their significant others across the three services: MBUs, general acute wards and Crisis Resolution/Home Treatment teams with or without perinatal community teams.
Sutter's team shows that mixed mood state in the mother is associated with unipolar past History, higher, socio-professional status and pregnancy onset of episode. They also show that higher risk for mother-child separation was associated with maternal diagnosis (psychotic disorder, personality disorders and/or addiction), young age and placement history in siblings.

Chandra's team found adequate inter-rater and test re-test reliability for their Scale to Rate Maternal behavior that also seems to have predictive validity not only on maternal behaviour but also on the need for supervision or child foster care.
Howard M. describes the support and care provided by MBU's staff that has a positive effect on mother and child outcomes.

Discussion: Implications for services and women care will be discussed, as well as methods to assess the risk and outcomes for the child.

3 Key words : Mother and baby units, efficient maternal care, child protection

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SYMPOSIUM: Filicide: Transcultural Perspectives to Inform Prevention. German Marcé Society Symposium

Claudia Klier[1], Jane Fisher[2], Maggie Kirkman[2], and Salmi Razali[2,3]

[1]Department of Paediatrics and Adolescent Medicine, Medical University of Vienna, Austria
[2]Jean Hailes Research Unit, School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia
[3]Discipline of Psychological and Behavioural Medicine, Faculty of Medicine, Universiti Teknologi MARA, Malaysia

When parents kill their children it is known as filicide. If the child is less than 12 months old, the death is termed infanticide; neonaticide is the killing by a parent of a newborn aged less than 24 hours. Filicide arouses horror and incomprehension, particularly when the perpetrator is the child's mother. It is a rare crime and therefore difficult to investigate. Most research has used judicial or police records to establish the extent of the crime and the characteristics of victims and perpetrators (Razali et al., 2014). Prevalence varies, with higher rates among less well-resourced nations. It is generally assumed that filicide occurs in the context of psychosis or psychopathy; the social, cultural, economic and political context is rarely considered. This symposium will present evidence from several countries about women and filicide in diverse contexts. Claudia Klier will discuss her work on prevention of neonaticide in Austria (Klier et al., 2013), and the European collaboration for the understanding of filicide draws on latent class analyses of data from a European sample to propose a new classification and contribute to prevention. Jane Fisher and Maggie Kirkman will present their work with Salmi Razali on maternal filicide in Malaysia. First they will describe the ways in which Malaysian professionals in health care, social service, and the law explain why women commit filicide. They will then present their analysis of the personal accounts of women convicted of filicide in Malaysia, revealing a contrasting perspective.

References

Klier CM, et al. (2013). Is the introduction of anonymous delivery associated with a reduction of high neonaticide rates in Austria? A retrospective study. *BJOG*, *120*, 428-434.
Razali S, Kirkman M, Ahmad S, Fisher J. (2014). Infanticide and illegal infant abandonment in Malaysia. *Child Abuse and Neglect, 38*, 1715-1724.

PAPER 3: Personal Perspectives From Women Convicted Of Filicide In Malaysia

Salmi Razali[1,2], Maggie Kirkman[1], Jane Fisher[1]
[1]Jean Hailes Research Unit, School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia
[2]Discipline of Psychological and Behavioural Medicine, Faculty of Medicine, Universiti Teknologi MARA, Malaysia

Background: Although filicide is of serious concern, it is poorly understood in Malaysia. When women kill their children, mental illness is often identified as a cause; if women are not mad they are defined as bad and punished even more severely. Our secondary analysis of Malaysian national data found that there were substantial missing data, with details undocumented for up to 87% of cases (Razali et al. 2014). Interviews with health and policy professionals revealed that they attribute responsibility to women for their failure to comply with social norms and religious teachings. This research sought to understand the meaning of and background to filicide from the perspectives of women who have been convicted of filicide and incarcerated in prison or a psychiatric hospital.
Method: In-depth interviews were conducted in person with all eligible and consenting women convicted of filicide and incarcerated in prisons or forensic psychiatric institutions in Malaysia. Women's accounts were translated into English and analysed using Interpretative Phenomenological Analysis and narrative theory (Kirkman 2002).
Results: Interviews with nine women convicted of filicide yielded evidence that others were implicated in the crime, that they had experienced lifelong violence and marginalisation, and had limited access to health care.
Conclusion: These research findings illuminate an inadequately understood phenomenon in Malaysia and reveal why the existing strategies to reduce filicide, which reflect the views of the key stakeholders, have had minimal impact. They reveal the pervasive harm of violence against women and children and its link to filicide.

Key words
Filicide, gendered perspectives, women in society

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Evaluation of Edinburgh Postnatal Depression Scale among women who have recently given birth in Vietnam and Australia: Item response theory analysis

Thach Duc Tran[a,b], Heather Rowe[a], Tran Tuan[b], Karen Wynter[a], Jane Fisher[a]

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Abstract

Background

The performance of a scale can differ when it is translated into another language or used in a different population from the one for which it was designed. This secondary analysis uses Item Response Theory techniques to compare the performance of the Edinburgh Postnatal Depression Scale (EPDS) items among women who recently gave birth in Vietnam and Australia.

Methods

This analysis included data from one population-based studies in Vietnam and one study in Australia, which collected data on the mental health of women who had given birth in the previous 4 weeks using the EPDS Vietnamese version in Vietnam and the original English-language version in Australia. Each item in the EPDS has four response options to reflect degree of agreement with a symptom of depression and is scored 0–3. Differential Item Functioning (DIF) analyses were used to compare the performance of each item between the two countries. The ability of each item to differentiate women with high and low levels of depressive symptoms was calculated using graded response IRT model.

Results

Data from 634 (Vietnam) and 391 (Australia) women were included. Mean EPDS scores were 1.9 (SD 3.1) in Vietnam and 5.9 (SD 3.8) in Australia. The probability of endorsing items 3 (*blamed myself unnecessarily*) and 4 (*anxious or worried*) was lower, and the probability of endorsing item 7 (*difficultly sleeping*) was higher, for Vietnamese than Australian women. In the Vietnamese sample, items 3, 4, 7 and 10 (*self-harm*) discriminated better between women with high and low levels of depressive symptoms, but in the Australian sample item 6 (*overwhelmed*) discriminated better.

Conclusions

There are differences in the performance of some EPDS items between Vietnamese and Australian women. Therefore, the EPDS should be validated against a diagnostic test to establish a local cut-off for a new population and not just translated.

Key words: EPDS, Item response theory, postnatal depression

A validation study of three psychometric instruments for screening for perinatal common mental disorders in women and men in Vietnam

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[b]Research and Training Centre for Community Development, Vietnam

Abstract

Background

There is increasing recognition that Perinatal Common Mental Disorders (CMDs) are a major public health problem for women in resource-constrained countries. The aim of this study was to establish the validity of three widely used psychometric screening instruments in detecting CMDs in women and their partners in Vietnam.

Methods

Translated and culturally verified versions of the Edinburgh Postnatal Depression Scale (EPDS), General Health Questionnaire 12 items (GHQ-12), Zung's Self-rated Anxiety Scale (Zung SAS) and a gold-standard diagnostic tool, the Structured Clinical Interview for DSM IV, were administered to a community-based representative cohort of Vietnamese women in the perinatal period and their partners. Receiver Operating Characteristic (ROC) analyses, and Cronbach's alpha were performed to examine the validity and internal reliability and to identify the optimal cut-off points of the three scales.

Results

Overall, 364 women and 231 men were included in the analyses. The Areas Under the ROC Curve and Cronbach's alphas shown the overall performance and the internal reliability of the three instruments were at acceptable levels. The selected cut-off point to detect clinically significant symptoms of CMDs in women using the EPDS was 3/4 (Sensitivity Se 69.7%; specificity (Sp) 72.9%), the Zung SAS was 37/38 (Se 67.9%; Sp 75.3%), and the GHQ-12 was 0/1 (Se 77.1%; Sp 56.6%). The cut-off point in men using the EPDS was 4/5 (Sensitivity (Se) 68.3% and specificity (Sp) 77.4%), the Zung SAS was 35/36 (Se 70.7% and Sp 79.0%) and the GHQ-12 was 0/1 (Se 75.6% and Sp 74.7%).

Conclusions

These instruments are suitable for use as screening tools for CMDs in women in northern Viet Nam, but probably because of differences in emotional literacy, familiarity with test-taking and the effects of chronic social adversity require much lower cut off scores to detect clinically significant symptoms than in other settings.

Key words: Screening tool, perinatal, common mental disorders

SYMPOSIUM: Filicide: Transcultural Perspectives to Inform Prevention. German Marcé Society Symposium

Claudia Klier[1], Jane Fisher[2], Maggie Kirkman[2], and Salmi Razali[2,3]

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When parents kill their children it is known as filicide. If the child is less than 12 months old, the death is termed infanticide; neonaticide is the killing by a parent of a newborn aged less than 24 hours. Filicide arouses horror and incomprehension, particularly when the perpetrator is the child's mother. It is a rare crime and therefore difficult to investigate. Most research has used judicial or police records to establish the extent of the crime and the characteristics of victims and perpetrators (Razali et al., 2014). Prevalence varies, with higher rates among less well-resourced nations. It is generally assumed that filicide occurs in the context of psychosis or psychopathy; the social, cultural, economic and political context is rarely considered. This symposium will present evidence from several countries about women and filicide in diverse contexts. Claudia Klier will discuss her work on prevention of neonaticide in Austria (Klier et al., 2013), and the European collaboration for the understanding of filicide draws on latent class analyses of data from a European sample to propose a new classification and contribute to prevention. Jane Fisher and Maggie Kirkman will present their work with Salmi Razali on maternal filicide in Malaysia. First they will describe the ways in which Malaysian professionals in health care, social service, and the law explain why women commit filicide. They will then present their analysis of the personal accounts of women convicted of filicide in Malaysia, revealing a contrasting perspective.

References

Klier CM, et al. (2013). Is the introduction of anonymous delivery associated with a reduction of high neonaticide rates in Austria? A retrospective study. *BJOG*, *120*, 428-434.
Razali S, Kirkman M, Ahmad S, Fisher J. (2014). Infanticide and illegal infant abandonment in Malaysia. *Child Abuse and Neglect, 38*, 1715-1724.

PAPER 2: Consultations With Key Informants In Malaysia On Why Women Commit Filicide

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Background: Filicide is recognised as a serious problem in Malaysia, although it is poorly understood. Our secondary analysis of national data found that there were substantial missing data, with details undocumented for up to 87% of cases (Razali et al. 2014). We aimed to elucidate the ways in which key informants explain the causes of filicide in Malaysia and their recommendations for mitigating the problem.
Method: Professionals experienced in working with women and girls who have committed filicide or are at risk of committing filicide were purposively selected for participation. Semi-structured interviews sought their opinions on the social context and causes of filicide by women, and potential preventive measures. English translations of interview transcripts were analysed thematically (Hammarberg et al., 2016).
Results: Interviews with 15 professionals revealed that they attribute responsibility to women for their failure to comply with social norms and religious teachings. The stigmatised social position of unmarried mothers was also identified as a contributing factor. Key informants' suggested solutions addressed institutional and social support for people at risk of filicide and a perceived need to change the behaviour of young people.
Conclusion: Key informants did not suggest ways of assisting women who are victims of sexual assault, nor provide recommendations to help victims of domestic violence (Fisher et al., 2015). Key informants' views reflect the dominant discourse of filicide in Malaysia and elsewhere.

Key words
Filicide, gendered perspectives, women in society

References

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Mindful Attachment Group Program for Mothers Experiencing Postnatal Distress

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ABSTRACT

Objectives/Background
The study evaluated the effectiveness of an eight week Mindful Attachment Group Program in alleviating postnatal distress in mothers of infants aged 18 months or younger. The program integrated aspects of mindful parenting (Vieten, 2009) with a fuller consideration of attachment-related issues (Siegel & Hartzell, 2004).
Methods
Eleven mothers participated in an 8 week group program which included: 1.Introduction to Mindfulness and application to parenting; 2. Being present; aware of self and infant 3. Being non-judgmental/non-reactive to parenting challenges; 4. Practicing Acceptance; fears, ideals, good-enough mothering; 5. Understanding family of origin influences; 6.Practicing security; being responsive 7.Mindfulness of emotions 8. Being compassionate; nurturing of self and infant. Mothers completed pre- and post- program measures to assess changes in psychological distress and parenting, as well as a several mediating variables regarding the change process.
Results
Pre and post-program comparisons indicated that while mothers showed substantial reductions in their general stress, reduction in depression was modest. Perception of how stressful the child was significantly reduced, with mother's parenting stress, as indicated by her feelings of incompetence, ill health, and role restriction reducing. While these changes were modest, more marked increases in emotion regulation, mindfulness and self-compassion were evident. Mothers reported increased awareness and clarity and less suppression of emotions, improved impulse control and less inclination to be reactive and judgmental of themselves and more able to describe and observe their internal experience, and be aware of their common humanity and to practice self-kindness.
Conclusion/Discussion
While initial results are promising, replication with larger samples is necessary in order to establish how effective such a brief intervention may be for women who experience varying degrees of postnatal distress.
3 Key Words
Mindfulness, attachment, postnatal
References
Siegel , D. J. & Hartzell, M. (2004). *Parenting from the inside out*. New York: Tarcher.
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SYMPOSIUM

TITLE: Australian Public Mother-Baby Units: from first beginnings to comprehensive care.
CHAIRPERSON: Professor Megan Galbally

SUMMARY: This symposium will bring together for the first time the 6 public psychiatric mother-baby units across Australia. From the earliest started in Glenside hospital in Adelaide and Larundel Psychiatric Hospital in Melbourne in 1980s through to the newest in Perth at Fiona Stanley Hospital opened in 2015 this has been an important and innovative model of care in perinatal mental health.
While need for sub-specialty medical services is often questioned this symposium will highlight the important role these units play for women and infants in Australia. While there are a number of services available for women with milder mental disorders these units are unique in providing care for arguably one of the most vulnerable groups: women and their infants with severe mental disorders across the perinatal period.
The units vary from 6-8 beds and located in community, tertiary and maternity hospitals. Each of these units has developed their own innovative models of care for women and their infants across the spectrum of mental disorders in response to the different geographic and needs of community they serve. Each unit will present on their philosophy of care, a snapshot of the unit referrals including diagnosis, length of stay, models of care and challenges in providing MBU services in their communities. Finally, the similarities across units and also what distinguishes each unit will be discussed and future directions for MBUs in Australia explored.

1. Austin Parent Infant Unit
    a. Title: Adapting to the Changing Mental Health System While Keeping Families in Mind
    b. Co-Authors: Anne Buist & Revi Nair, University of Melbourne & Austin Health Email: a.buist@unimelb.edu.au
    c. Biography: Anne Buist first worked in this unit at Larundel in 1986 and was director at the Mercy MBU and then the Austin until 2015 when next in charge Revi Nair took over
    d. Objective/Background: Review of the changes in mother baby units from the psychiatric hospital environment to the current general hospital
    e. Method: Historical review of changes and summary of unit from 1983 to 2016 with respect to staffing, program and KPI's
    f. Results: The unit is now streamlined with respect to space, staff and length of stay, but has maintained flexibility and changed its focus and now has better links to the community.
    g. Conclusion: The changed name of the unit, to Parent Infant unit, reflects the changes of priority from just mother to her in the context of her relationships and supports and the outcomes for all concerned.

h. Key words: parent-infant unit
i. References:

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Buist A., Dennerstein L., Burrows G. Review of a Mother and Baby Unit in a Psychiatric Hospital. Australian and New Zealand Journal of Psychiatry, 1990; 24:103.

j. Nil financial supports

2. Helen Mayo House
   a. Title: Helen Mayo House, South Australia's hub for perinatal mental health
   b. Co-authors: Anne Sved Williams[1,2], Rebecca Hill[1], Georgie Swift[1]
      1. Helen Mayo House, Women's and Children' Health Network, South Australia
      2. University of Adelaide
      Email: Anne.SvedWilliams@sa.gov.au
   c. Biography: Anne Sved Williams has been the Medical Unit Head of Helen Mayo House since 1987, and has helped develop an inpatient unit for severely mentally ill women, which also focuses on the mental health of their infants. She has published journal articles, edited a book and written book chapters relevant to the field as well as undertaking extensive teaching on these topics throughout many parts of Australia, and currently researching borderline personality disorder in perinatal women.
   d. Objective / Background: Helen Mayo House is South Australia's only inpatient mother-baby unit and has developed protocols to best help mentally ill mothers recover whilst also caring for their infants. The unit is unique in that women can be admitted to the unit with their children up to the age of 3 years.
   e. Methods: Research over the last 3 years in the unit has focused on documenting at both admission and discharge the mood, anxiety levels, subjective relationship with infant and relevant personality factors of each woman admitted.
   f. Results: Have shown over time that whilst women improve both in their mood and their perception of parenting competence, personality factors are substantial in their journey. Results will be presented in detail and discussed

g. Key Works: Mother-baby unit, personality disorder, infant mental health
h. References (minimum of 2): Nil
i. No financial conflict: Nil

3. Werribee Mercy Mother-Baby Unit (formerly Mercy MBU at Mercy Hospital for Women)

a. Title: Mercy Mental Health Mother Baby Unit, a culturally diverse catchment.

b. Co-authors: Jess Barnes, Nurse Unit Manager. Dr Kristine Mercuri, Consultant Psychiatrist. Email: JBarnes@mercy.com.au

c. Biography: Jess Barnes a Registered Nurse, holds a post graduate Diploma in Mental Health nursing (La Trobe University). Jess is undertaking her Masters of Infant Mental Health, infant stream, at the University of Melbourne. Dr Kristine Mercuri is a Perinatal Psychiatrist with additional training in mindfulness based group interventions in the perinatal period. She is an honorary lecturer at University of Melbourne and involved in research in intervention programs in the perinatal period at The Royal Womens Hospital, Melbourne.

d. Objective/Background: A specialist Perinatal Mental Health in patient unit that is located in Werribee, Victoria. Provides specialist perinatal mental health services to women, together with their infants up to 12 months of age. This unit accommodates 8 women and their baby/ babies (under 12moths of age) that are in need of mental health care in the hospital setting. The unit has a focus on the family, and allows for the co-parents/ partner to stay on the unit overnight to participate in care and treatment. Some women/ new mothers require compulsory treatment under the mental health act 2014. This unit aims to provide care in the least restrictive environment and to preserve the mother infant relationship. The unit has a strong focus on the social, emotional, physical and mental health of the infant, as person in their own right. As a specialist unit the unit has large catchment area, essentially one third of the state of Victoria.

e. Methods: Data was collected from 307 mothers admitted between 1st January 2011 and 31st June 2015 through a self-report measure of depressive symptoms using the Beck Depression Inventory (BDI) and a nursing observation measure of mother-infant outcomes using the Mother and Child Risk Observation (MACRO)

f. Results: Response rates for the outcome measures were 125 (41%) for women who completed the BDI self-evaluation questionnaire on entry and exit, and 209 (68%) for the women who were evaluated using the MACRO scale on entry and exit. Improvement from entry to exit was seen with statistical and clinical significance in terms of depressive symptoms. MACRO scores showed statistical significance only. These results and others will be further elaborated on during discussion.

g. Conclusion: It can be seen that in the short term, joint admission of mothers with their infants is highly beneficial in terms of depression

outcomes. Interestingly, we did not find clinically significant change in terms of observer-rated mother-infant outcomes.
h. Key Words: Mother Baby Unit, Infant Mental Health, Mercy Mental Health.
i. References (minimum of 2): Nil
j. Financial support: nil

4. Monash Medical Centre Parent Infant Inpatient Unit
    a. Parent Infant Inpatient Unit
    b. Hoopmann, Celeste Monash Medical Centre Email: Celeste.Hoopmann@monashhealth.org
    c. Dr Celeste Hoopmann is the Consultant Psychiatrist on the PIIU at Monash Medical Centre
    d. Objective / Background: This paper will present on the history, current philosophy and presentations to the PIIU at MMC. This is currently a 6 bed unit which accommodates 6 mothers and 6 babies.
    e. Methods: Review the history of the development of the PIIU and recent admissions
    f. Results: A profile of the unit will be presented
    g. • Conclusion / Discussion: PIIU at MMC has gone through a recent transformation from MBU to PIIU this and the profile of admissions will be discussed.
    h. • 3 Key words: Parent-Infant; Mother-Baby Unit; Perinatal Mental Health
    i. • References (minimum of 2): Nil
    j. • List of any financial supports: Nil

5. King Edward Memorial Hospital Mother-Baby Unit
    a. Title: Inpatient perinatal mental health in Western Australia: 2007-2016
    b. Presenters: Dr Philippa Brown Head of Department Consultant Psychiatrist, Dr Felice Watt Director of Psychiatry KEMH Email: Felice.Watt@health.wa.gov.au
    c. Biog: Dr Philippa Brown has been an inpatient consultant perinatal psychiatrist since 2000 establishing the current MBU in collaboration with Jon Rampono. Research interests include the use of rating scales in the perinatal period and first episode perinatal psychosis. Dr Felice Watt is a graduate of University of WA and was accepted as a fellow of the New Zealand RANZCP in 1995. Subsequently she worked in private practice, with special interests in long term psychotherapy and perinatal psychiatry. Since 2008 she has worked at Women and Newborn Health Service in the fields of women's mental health and perinatal psychiatry and is currently Director of Psychiatry, Women's Health Clinical Care Unit
    d. Background: Western Australia opened 3 mother and baby beds in 1984 in Graylands Hospital, one of the State's two authorized

psychiatric hospitals. In 2007 a purpose built, free standing 8 bedded authorised unit opened in the grounds of the women's hospital KEMH.

e. Methods: A data base was set up at the opening of the new unit and data has been collected from 1108 patients to date. A PHD thesis by Nadia Cunningham has used the data to look at symptom measurements in commonly used rating scales (see below). Data has been collected from 70 patients with first presentations of psychosis.
f. Findings: The Unit's staffing levels, funding and programme will be outlined. The demographic, mental health, and obstetric characteristics of the women admitted to the unit will be described. The presentation will focus on the diagnostic groupings and dilemmas of current classification systems, particularly in the context of the ABF environment.
g. Key words: perinatal, psychosis, mother and baby unit.
h. References: 1.The Structure of Negative Emotional States in a Postpartum Inpatient Sample. Journal of Affective Disorders 192 • December 2015 N.Cunningham, P.Brown, A.Page 2. Does the Edinburgh Postnatal Depression Scale measure the same constructs across time? Archives of Womens Mental Health 18(6) • December 2014 N.Cunningham, P.Brown, A.Page 3. The structure of emotional symptoms in the postpartum period: Is it unique? Journal of Affective Disorders 151(2) • August 2013 N.Cunningham, P.Brown, J. Brooks, A.Page
i. Financial: Nil

6. Fiona Stanley Hospital Mother Baby Unit
    a. Title of Abstract: New frontiers in perinatal mental health inpatient care
    b. All Co-authors, institutions, and email addresses: Kristianopulos, D[1]; Devadason, T[1]; Schutte, S[1]; Day, M[1]; Lange, B[1]; Niven, K[1]; di Toro, L[1]; Fenner, S[1]; Galbally, M[1,2,3]
    [1]Fiona Stanley Hospital; [2]Murdoch University; [3]University of Notre Dame
    Contact Email: Donna.Kristianopulos@health.wa.gov.au
    c. Biography Donna Kristianopulos is the Clinical Nurse Specialist for Perinatal Mental Health Services at Fiona Stanley Hospital. She has extensive experience in perinatal mental health in both public and private hospitals in WA.
    d. Objective / Background: Fiona Stanley Mother Baby Unit is the newest of the public mother-baby units in Australia and opened in early 2015 as part of a brand new tertiary hospital for Western Australia. This unit is 8 beds within a 783-bed, $2 billion brand new public hospital the geographical size of 6 city blocks and including dedicated education and research precincts. This unit presents opportunities for new developments in perinatal mental health inpatient care.
    e. Methods: An electronic database has been developed as part of the new unit

f. Results: The development of the service, database protocol and the admissions over 18 months will be presented.
g. Conclusion / Discussion Developing a mother-baby unit as part of a new tertiary hospital brings with it challenges but also opportunities to develop in new and innovative directions. Both the challenges and future directions will be discussed.
h. 3 Key words perinatal mental health; mother-baby units
i. References (minimum of 2)

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    3. Galbally, Lewis, Snellen. Perinatal Mental Health In: Eds. Galbally, Snellen, Lewis: *Psychopharmacology and Pregnancy - Treatment Efficacy, Risks, and Guidelines* 2014

j. List of any financial supports: Nil

Improving maternal outcomes by admitting antenatal women to a Mother and Baby Unit – case presentation.

Presenter – Gillian Ennis – Clinical Nurse Manager, Mother and Baby Unit, King Edward Memorial Hospital, Perth, WA.

Email – Gillian.Ennis@health.wa.gov.au

Phone – 08 9340 1799/0448686029

Biography - Gillian trained as a mental health nurse in London, UK where she worked for over 20 years in a variety of positions before migrating to Perth, WA. In 1999, she commenced work as a perinatal community mental health nurse & her interest in perinatal mental health was born.

Prior to the opening of the Mother Baby Unit at King Edward Memorial Hospital in July 2007 she started working as a clinical nurse and helped develop the initial governance structure. She has undertaken a number of roles at the unit and was promoted to Clinical Nurse Manager in early 2015.

Co-authors

Dr Philippa Brown, Head of Department, Consultant Psychiatrist

Objective/background

Explore and outline the benefits of admitting women in the antenatal period to a Mental Health Mother and Baby Unit

Methods

Case presentation of two women admitted to a public Mother and Baby Unit antenatally and post-delivery. One woman psychotic who had previously requested late termination, and the other a woman with an IVF pregnancy conducted overseas – 3 foetuses' implanted and developed to viable pregnancy – increased anxiety in the woman who severely decompensated and considered termination.

The case studies will draw on the clinical pictures of each case highlighting the interventions used to manage the individuals. It will outline the improvement in maternal and social outcomes and the subsequent development of the relationship with the foetus due to early intervention.

Results

Outline the benefits of early intervention and admission in the antenatal period.

Positive outcomes made with improved maternal mental health, improved psychosocial factors, decrease of risk issues, and anecdotal evidence of improved attachment with foetus/baby

Service issues – impact on team, practice changes

Conclusion/discussion

Developments of service provision – consider how as a service outcomes are monitored and collected, and development of local research data for this cohort of patients

3 key words

Antenatal, healthy relationships, service development

References

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Using the NBO for vulnerable parents in a Perinatal and Infant Mental Health C/L Service

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Background: In the context of rapid through put in our maternity hospital and pressure to identify and assist troubled parent-infant relationships prior to discharge, PIMHS staff and midwives have been trained to use the NBO as an early intervention with vulnerable parents/families. The Neonatal Behavioural Observation (NBO) has shown to improve parenting with vulnerable parents and infants, is brief, and can be delivered by midwives as part of their routine post-natal care of women.
Methods: The NBO assessment will be described with research to support its usefulness in relationship building and enhancing parental sensitivity especially where there are risk factors like maternal anxiety, depression, sick or premature infants, difficult birth and psychosocial stress.
Results: Experience will be shared from staff about the usefulness of the NBO in our context over the past 18 months since it has been introduced. Examples from video material and parental feedback reports will be given.
Conclusions: The NBO is well received by parents and generally an enjoyable experience for all. It allows the infant to show his/ her unique self, capabilities and communication. It gives parents a "head start" in getting to know their infant, attune to his/her needs and to discuss their own per-occupations as a parent. It can be incorporated into routine post-natal care in busy post-natal wards, home visits and outpatient care.

Key Words: vulnerability, routine care, intervention

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Fetal heart rate variability mediates the effect of prenatal depression on neonatal neurobehavioral maturity

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Objectives/Background. Prenatal depression has been associated with both delayed fetal neurobehavioral maturity and delayed neonatal neurobehavioral maturity (1), but in separate studies. The present study (2) analyzed FHR variability as a potential mediator in the relationship between prenatal depression and neonatal neurobehavioral maturity. **Methods.** A sample of 104 pregnant women was recruited and divided into two groups according to Edinburgh Postnatal Depression Scale (EPDS) scores (depressed/non-depressed). FHR variability in response to nursery rhymes was assessed at term (37-39 weeks gestation). The neonates' neurobehavioral maturity was assessed on the Neonatal Behavioral Assessment Scale (NBAS) in the first 5 days after birth. Multivariate analyses were performed followed by univariate analyses of variance. To assess the mediation effect of the FHR variability (during the familiar stimulus first presentation) on the relationship between prenatal depression and the neonatal neurobehavioral maturity, linear regressions were conducted. **Results.** The fetuses of prenatally depressed women had lower heart rate variability and later as neonates performed less optimally on the NBAS (lower autonomic stability and total scores). FHR variability mediated the relationship between the mother's prenatal depression and the neonate´s NBAS performance. **Conclusion/Discussion.** Prenatal depression effects on neonatal

neurobehavioral maturity may be partially explained by its adverse effect on fetal maturity.

Keywords: prenatal depression; fetal heart rate variability; neonatal neurobehavioral maturity.

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Interventions other than psychosocial, psychological and pharmacological interventions for preventing postpartum depression: a Cochrane systematic review

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Background/Objectives: Psychological, psychosocial, and pharmacological interventions have been established as effective preventive and treatment interventions for postpartum depression. Other interventions, including acupuncture, bright light therapy, herbal remedies, massage, nutraceuticals, physical exercise and yoga have been evaluated in relation to the treatment of postpartum depression, and evidence had been shown to be inconclusive. These interventions have not been systematically reviewed in relation to postpartum depression prevention. The primary objective of this review was to assess the effects on mothers, infants and their families, of interventions other than pharmacological, psychosocial, or psychological interventions compared with usual care in the prevention of postpartum depression.
Methods: We are conducting a Cochrane systematic review and meta-analysis. We included all published, unpublished, and ongoing randomized controlled trials of interventions other than pharmacological, psychosocial, or psychological interventions where the primary or secondary aim was the prevention of depressive symptomatology in postpartum women. Two authors screened abstracts and full texts, extracted data and assessed risk of bias. Results will be presented using relative risk for categorical data and weighted mean difference for continuous data.
Results: Diverse trials met the inclusion criteria. The methodological quality of these trials was generally not strong. Meta-analyses are currently underway and will be presented.
Discussion/Conclusions: Women's preferences for non-conventional interventions must be taken into account in the important area of prevention of perinatal mental health problems.
Key words: Preventive interventions, postpartum depression, systematic review
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Mental Health E-Screening during Pregnancy: Performance of the EPDS

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Background: Mental health screening as part of routine prenatal care is recommended by international guidelines.[1,2] E-screening holds promise for addressing barriers that deter implementation of routine screening in clinical settings. To date, little research has determined whether the performance of screening tools (e.g., ability to detect symptoms of depression/anxiety) is similar by screening mode.

Objectives: The primary objective was to determine whether psychometric properties of the EPDS vary between paper-based and e-screening modes when compared to the MINI diagnostic interview.

Methods: This RCT used computer-generated randomization to allocate women to paper-based or e-screening using the EPDS. English-speaking pregnant women were recruited through obstetrical clinics and prenatal classes in Alberta and Ontario (Canada). Following randomization, women completed screening tools and a baseline questionnaire. Blinded research assistants conducted diagnostic interviews 1-week post-recruitment. [Protocol: **http://trialsjournal.biomedcentral.com/articles/10.1186/1745-6215-15-3].**

Results: There was no difference in mean EPDS scores between groups (N=636). The proportion of women with EPDS scores ≥13 that were also identified by the MINI was similar by mode (36.8% e-screening; 44.4% paper-based), as were those with EPDS scores ≥10 (68.4% e-screening; 61.1% paper-based). At a cut-off of ≥13, the EPDS sensitivity and specificity were similar by mode (e-screening sens=.37, spec=.93; paper-based sens=.44, spec=.93), as with a cut-off of ≥10 (e-screening sens=.68, spec=.83; paper-based sens=.61, spec=.82). ROC analysis identified an AUC of .80 for the e-screening EPDS (≥13). Cronbach's alpha's for e-screening and paper-based were .88 and .85.

Conclusion: Results indicate that the performance of the EPDS is similar for both e-screening and paper-based screening modes. Findings suggest that delivering the EPDS via e-screening is a viable option.

Key words: e-screening; pregnancy; mental health

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Early Maternal Adversity, Endogenous Oxytocin, and their Association with Child Disorganized Attachment Behaviour

Phyllis Zelkowitz[1], Anna Levinsson[1], Vanessa Lecompte[2], Ellen Moss[2], Ian Gold[3], Barbara Hayton[1], Nancy Feeley[4], C. Sue Carter[5]

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Background/Objectives. A mother's personal experience of early adversity, such as poor parenting, may be associated with dysregulation of the oxytocin (OT) system, with effects on perinatal depression and the mother-child relationship. This study examined the association between mothers' recollections of parental care and disorganized attachment behaviour in their children, and considered whether OT, maternal depression, and maternal sensitivity might mediate this association. **Methods.** A sample of 184 women was followed from early pregnancy until 2.5 years postpartum. Plasma OT was assessed at 12-14 weeks gestation. Mothers completed the Parental Bonding Instrument (PBI), a self-reported measure of parental care and overprotection prior to age 16, and the Edinburgh Postnatal Depression Scale (EPDS). Maternal sensitivity was coded using the Emotional Availability Scales. Disorganized attachment behaviours were coded using the Preschool and Early School-Age Attachment Scales. **Results.** Regression analysis showed significant main effects of mothers' experience of paternal care (β= -.02) and maternal overprotection (β= .03), as well as her own sensitive behaviour (β= -.034), on disorganized attachment behaviour. While OT and maternal depressive symptoms were not directly related to disorganized attachment behaviour, paternal care was related to OT, which was in turn associated with maternal depression. Maternal depression was a significant predictor of sensitive behaviour. **Conclusion.** Early maternal adversity in the form of poor paternal care and maternal overprotection was associated with children's disorganized attachment behaviour, as was less sensitive maternal behaviour. OT may be implicated indirectly through its association with paternal care and maternal depression.

Key words: Early adversity, oxytocin, disorganized attachment

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Margaret Howard, PhD[1,2] and Cynthia L. Battle, PhD[1,2,3]

Objectives/Background:

The first US-based MBU opened in 2000[1]. This MBU is based on a partial hospital ("Day Hospital") model which means mother and baby spend 5-6 hours in treatment each day but return home at the end of the day, with the goal of keeping family intact and providing more realistic gauge of treatment progress. This model differs from more traditional inpatient MBU's found in other parts of the world[2]. In this presentation we will describe the Day Hospital model of MBU care and summarize results from studies conducted with our patients, including evaluation of changes in symptom severity and patient satisfaction.

Methods:

Women admitted to the Day Hospital complete a packet of self-report questionnaires on their day of admission and day of discharge. Questionnaires measure a range of variables and symptoms including depression and anxiety symptoms, maternal bonding, and patient satisfaction.

Results:

Retrospective chart review studies of patients treated in the Day Hospital program revealed significant decreases ($p<.001$) in self-reported depression and anxiety symptoms following program completion [3] as well as over 90% favorable patient satisfaction rates on several indices.[4]

Conclusion/Discussion:

The Day Hospital model of MBU is a cost-effective method for providing intensive treatment for women suffering from psychiatric illness during the perinatal period. This model of care represents an alternative to inpatient treatment except in rare cases of severe suicidality, homicidality, or psychotic impairment. Overall, patient satisfaction is very positive, suggesting that this is a highly acceptable model of MBU treatment.

Key words: MBU, Day Hospital, Partial Hospital Treatment

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Marce Society
March 19, 2016

Title of Abstract: Oxytocin Receptor DNA Methylation in Postpartum Depression

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Objective: To assess for postpartum depression (PPD)-specific DNA methylation variation in the oxytocin receptor (*OXTR)* and investigate associations with serum hormone levels.

Methods: To assess genome-wide DNA methylation, we utilized three data sources: two at-risk populations (the Johns Hopkins Prospective PPD sample (Guintivano et al., 2014) and publicly available gene expression data from a prospective PPD cohort (Mehta et al., 2014)) and one psychiatrically healthy population (the Franconian Maternal Health Evaluation Studies cohort). We analyzed samples using the Illumina Human Methylation 450 (HM450) bead array, sodium bisulfite pyrosequencing, and genotyping. Gene expression analysis was downloaded from GEO accession GSE45603. We used ELISA to analyze plasma from the Johns Hopkins cohort for levels of allopregnanolone, progesterone, and estradiol. Diagnosis of PPD was based on DSM-IV criteria and was confined to individuals experiencing a major depressive episode within the first 4 weeks following parturition.

Results: In the Johns Hopkins group, DNA methylation was differentially associated with PPD in an intronic region in the *OXTR* gene located 4bp proximal to an estrogen

receptor (ER) binding region (p = 0.008); CPGs in this region (chr 3 at positions 8810078 and 8810069) interacted with trauma history to predict PPD in the psychiatrically healthy cohort (p = 0.03). There was a significant interaction between PPD status and DNA methylation on plasma estradiol levels (p = 0.038), and methylation was also significantly associated with the ratio of allopregnanolone to progesterone (p = 0.031).

Conclusion/Discussion: The data suggests that *OXTR* epigenetic variation may be an important mediator of mood relevant neurosteroid production. It is important to consider that allopregnanolone levels inhibit OXT expression during pregnancy so as to limit incidence of preterm birth (Brunton et al., 2014), suggesting our data may implicate an epigenetic contribution to a self regulatory feedback inhibition mechanism affecting overall activity of this system.

3 Key Words: oxytocin receptor (OXTR), DNA methylation, postpartum depression

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Prevention of Filicide in the Context of the Perinatal Period.

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[3]Department of Psychology and Logopedics, Abo Akademi University, Vanha Vaasa Hospital, Vaasa, Finland
[4]Department of Psychology, University of Vienna, Vienna, Austria

Background: The need to achieve an understanding of the phenomenon of filicide led to a binational, register-based study in Finland and Austria.

Main objectives: The prevention of this crime specially in the context of the perinatal period is of special interest. One focus of the presentation will be the impact of Austria's anonymous birth law from the time relevant statistical records are available and to evaluate the use of hatches versus anonymous hospital delivery (Klier et al., 2013)

Methods: The study covers all cases of filicide and their perpetrators in Austria and Finland in the years 1995–2005. The time trends of neonaticide rates, anonymous births and baby hatches were analysed by means of Poisson and logistic regression model using statistical data from 1975 - 2012. Predicted and observed rates were derived and compared using a Bayesian Poisson regression model.

A second focus will be on a new classification of filicide. The following variables emerged as differentiating factors for the classification of filicide: gender, age of victim and offender, circumstances before and during the offence, the offender's socioeconomic and criminal background, and childhood conduct disorder. Latent class analysis (LCA) was used to identify profiles.

Results: A new classification of subtypes of filicide are proposed by Putkonen (in press) with suggestions for helping its prevention. 1) Homicidal-Suicidal Fathers, 2) Violent Impulsive Parents, 3) Single Sober Parents, 4) Prosocial, Psychotic Parents, and 5) Infanticidal Mothers. For the latter a prevention strategy was evaluated with following results: The time trends of neonaticide rates, anonymous births and baby hatches were analyzed Predicted numbers of neonaticides for the period of the active awareness campaign, 2002–2004, were more than three times larger than the observed number ($p = 0.0067$). The implementation of the anonymous delivery law is associated with a decrease in the number of police-reported neonaticides.

Key words: Neonaticide, Prevention, Anonymous birth

Klier CM, et al. (2013). Is the introduction of anonymous delivery associated with a reduction of high neonaticide rates in Austria? A retrospective study. BJOG, 120, 428-434.
Putkonen H. et al. Classifying Filicide. International Journal of Forensic Mental Health. (In press)

Background: The genetic contribution to postpartum depression (PPD) etiology is not well understood, particularly how genetic predisposition is modified by social support or previous adverse life events.

Methods: We recruited a diverse racial/ethnic population (N=1512 women) at six weeks postpartum from three obstetrical clinics in North Carolina. PPD status was determined using the MINI-plus (v6). Participants were administered a battery of validated, self-report instruments to assess depression (Edinburgh Postnatal Depression Scale), adverse life events (Leserman Trauma Form[1]), social support (Medical Outcomes Survey, DAD survey[2]), and life stressors (Everyday Stressors Inventory). Biological samples were also taken for genetic analyses.

Results: In our cohort, 36% of women screened positive for PPD. This population was ethnically diverse (68% black and 14% hispanic). Among women with trauma history, there was an almost 3-fold increase (OR, 2.61) in the odds of PPD. PPD was significantly associated with increased history of trauma ($P < 0.001$) and abuse ($P < 0.001$), less social support ($P < 0.001$) and decreased involvement of the baby's father ($P < 0.001$), and increased life stressors ($P < 0.001$). Genetic analyses are underway now and will be presented for the first time in September.

Discussion: Several independent risk factors were found to be associated with PPD including social support, paternal involvement, and life stressors, which are avenues for future intervention studies. History of abuse and trauma were also significantly associated with PPD. The role of genetic predisposition is currently under investigation and will be presented at the conference.

Keywords: adverse life events, postpartum depression, genetics

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Sleep, crying and feeding problems at 1 month of age: prevalence and comorbidity in Australian infants.

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Objectives/Background: Infant sleep, crying and feeding problems are commonly reported by parents in the first few weeks of life (1,2), however the extent to which these co-occur, and associated characteristics, have not been documented in a community sample. We examined (1) the prevalence of sleeping, crying and feeding problems (maternal report), (2) the extent to which they co-exist and (3) characteristics associated with each. **Methods:** Health nurses invited families of newborn infants to take part. Mothers completed a questionnaire at 4 weeks of infant age, examining infant sleep, crying and feeding problems, infant and mother characteristics, including self-efficacy and doubt about parenting ability. **Results**: 770 families took part. Infant sleep, crying and feeding problems were reported by 38%, 27.3% and 24.8% of mothers, respectively. Fewer than half of the infants (46.8%) had no reported problem, 199 (25.5%) had 1 problem, 160 (20.4%) had 2 problems and 57 (7.3%) had 3 problems. Mothers of first born children were more likely to report crying problems and comorbid problems. 'Tense' mothers were at increased risk of infant feeding problems. Poor self-efficacy and feelings of doubt predicted report of each of the three infant problems, and report of comorbid problems, even when adjusting for other factors. **Conclusion/Discussion:** Universal programs that educate first-time parents about normal infant crying may be appropriate. Parents reporting poor self-efficacy and doubt require strategies to cope with unsettled infant behaviour.

Key words: unsettled infant, comorbidity, maternal doubt

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Maternal role or a mother-infant relationship?

Dr Joan Garvan

Objectives/Background: Research on the Transition to Parenthood shows high levels of depression and high levels of marital dissatisfaction (Glade, Bean and Vera 2005). A displacement of the self for mothers during the early years after the birth is often experienced in relation to identity. Women often fall back on a belief that mothers need to be selfless while concurrently providing for the enhancement of their infant/child's life experience (Hays 1996). An objective of this paper is to highlight the experience of a sample of Australian women in the early years after the birth of their first child and to review literature from within Midwifery and Maternal and Child Health on the mother-infant connection in light of these findings.

Methods: Survey data drawn from in-depth semi-structured interviews with sixteen first time mothers on their beliefs and experiences in regard to their sense of self. Review related literature on propositions in regard to the subject of the woman-as-mother.

Results: A gap between the expectations and the experience of women as mothers is often experienced in relation to identity. Women prioritise the interests of the infant/child and family functioning at a cost both economically and to their health. This paper highlights a body of literature that is concerned with the experience of women when they become a mother, most often spoken about in terms of assisting them take on a maternal role.

Conclusion/Discussion: This paper argues complex interpersonal dynamics between mothers and their infant/child can be advanced by further consideration being given to the notion of 'intersubjectivity' by early years health and welfare practitioners.

Key words: mother, maternal role attainment, intersubjectivity, selflessness, midwifery, maternal and child health, transition to parenthood, perinatal depression, identity

References:

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Associations between unsettled infant behaviour, paternal depressive symptoms and anger: a community cohort study.

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Objectives/Background: Poor paternal mental health is associated with poor outcomes for children (1), and increased risk of harm (2), yet fathers' cognitions surrounding their unsettled infant, are largely unexplored. We examined unsettled infant behaviour and fathers' depressive symptoms, cognitions, and personal sleep, in a community cohort. **Methods:** Data were collected from 102 fathers at 4 and 6 months of infant age. Measures included report of infant sleep, crying and feeding problems, depressive symptoms, cognitions, and own sleep quality and quantity. **Results:** Sleep problems at 4 months were associated with increased depressive symptoms (adjusted mean difference 2.64 (1.27-4.00)), doubt (adjusted mean difference 1.82 (.40-3.25)), anger (adjusted mean difference 1.86 (.51-3.20)), poor personal sleep quantity (adjusted OR .21; 95% CI .09-.51) and quality (adjusted OR .20; 95% CI .08-.51); and at 6 months with increased depressive symptoms (adjusted mean difference 2.56 (1.28-3.84)), anger (adjusted mean difference 1.63 (.40-2.87)), poor personal sleep quantity (adjusted OR .14; 95% CI .05-.38) and quality (adjusted OR .28; 95% CI .11-.72). Crying problems at 4 months were associated with increased anger (adjusted mean difference 1.98 (.60-3.36)) and doubt (adjusted mean difference 1.55 (.05-3.05)); and at 6 months, with increased depressive symptoms (adjusted mean difference 3.04 (1.59-4.69)), anger (adjusted mean difference 2.73 (1.29-4.17)) and less personal sleep (adjusted OR .22; 95% CI .07-.71).

Conclusion/Discussion: Fathers of infants who remain unsettled at 6 months of age, are at risk for negative outcomes and require referral to appropriate support services.

Keywords: Unsettled infant, anger, fathers, depression

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Volunteers' experiences of providing peer support on the PANDA Perinatal Anxiety and Depression Australia Helpline

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Objectives/Background:
Perinatal peer support services developed to support women and families include telephone peer support to improve mental health[1]. PANDA Perinatal Anxiety and Depression Australia Helpline (the Helpline) offers support to callers impacted by perinatal mental illness. Callers receive counselling from professional staff and peer support from volunteers who have themselves experienced perinatal anxiety and/or depression, or supported someone who has. The experiences of volunteers providing peer support on the Helpline were explored[2].

Methods:
A mixed-methods design was used, incorporating two focus groups and an online survey. All PANDA volunteers were invited to participate (n=40). A total of eight volunteers attended one of the two focus groups, and 11 survey responses were received. Descriptive statistics were used to analyse quantitative survey data. Focus group transcriptions and responses from the open-ended questions were analysed thematically.

Results:
All volunteers 'strongly agreed' that they felt positive about being part of PANDA, and 'agreed' or 'strongly agreed' that their work at PANDA made a positive contribution to others. Four themes were developed from the thematic analysis: Motivated to help others; supported to support others, helping to make a difference; and emotional impacts for volunteers. No volunteers reported that their work as a PANDA volunteer impacted negatively on their emotional wellbeing.

Conclusion/Discussion:
Volunteers described a strong drive to support others experiencing emotional distress. Participants described feeling very well supported in their role, and experiencing a sense of satisfaction and happiness in being able to help others.

3 key words:
Volunteers
Peer support
Helpline

References:
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[2] Salzer, M.S., Shear, S.L., 2002. Identifying consumer-provider benefits in evaluations of consumer-delivered services. Psychiatr. Rehabil. J. 25, 281–288.

Objectives/Background
The transition to parenthood is a key stage in lifespan (Cowan & Cowan, 2000). To date there has been sporadic application of theory to exploration of how families and individuals traverse this change, particularly in populations with an absence of diagnosable psychopathology. Resilience is a multilevel biopsychosocial system and therefore a holistic theoretical concept useful for capturing this complex process (Windle, 2011).

Methods
A rigorous scoping review exploring the use of resilience theory in studies examining the transition to parenthood was conducted. A broad search strategy was designed and 18 studies were included at the final stage. Study selection was pretested on 30% of the dataset by two independent experts in the field of perinatal mental health. Inter-rater reliability was assessed using percentage agreement. A data charting table was developed, reviewed periodically, and reflexively adapted to ensure a comprehensive representation of the data.

Results
Numerical analysis was used to examine the distribution of studies with regard to geography, date of publication, design, etc. Integration of theory was analysed using an a-priori coding system. A quality assessment was generated based on a review of published scoping and systematic reviews considering similar questions of theory application. Thematic analysis, as described by Braun and Clarke (2006), was used to examine qualitative data. Overall, the review showed that resilience is a construct of interest within the field of inquiry about the transition to parenthood, that there is great variation in how resilience is being explored, and that the application of theory (when it occurs) is of high quality.

Conclusion/Discussion
Implications of the review were explored with a particular focus on multidisciplinary collaboration between medicine, psychology and social work. Resilience is a concept that could hold great potential for perinatal care and a fertile ground for positive intervention in the wellbeing of new parents.

Keywords: resilience, transition, perinatal

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Windle, G. (2011). What is resilience? A review and concept analysis. *Reviews in Clinical Gerontology, 21*, 152-169

Case Study: Introducing screening in a private maternity hospital.

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Screening for perinatal depression and/or anxiety enables identification, early intervention and prevention of poor mental health for both mother and family. An effective antenatal screening program also includes the identification of psycho-social risk factors thus enabling effective management by health professionals (beyondblue, 2011). During pregnancy and early parenthood, women (and their families) have multiple contacts with health services thus providing more opportunities for mental health screening and psychosocial assessment than at any other time in life. Generally there is also significant goodwill towards any behaviours that will increase the chance of healthy outcomes for both mother and baby.

In Australia there has been more successful implementation of antenatal mental health screening and psychosocial assessment programs in the public birthing system during the decade since the National Screening program in 2001-2005 (Buist & Bilszta, 2006). More recently there has been successful implementation of screening in a few private hospitals in Australia but women birthing outside the public system are still generally disadvantaged (Kolhoff et al, 2015).

This presentation is a case study of a successful antenatal screening program in a small, private (not-for-profit) regional hospital with around 1000 births per annum. Strategies employed in preparation, training of maternity staff, engaging key stakeholders, using consumer feedback to improve the process, supporting staff and developing care pathways will be shared. In addition the authors will also describe how they successfully changed tools for the psycho-social assessment in response to feedback from consumers and organisational factors, maintaining acceptability by all key stakeholders.

This presentation is practice based evidence at it's best; all authors work in the clinical field and are committed to finding the balance between pragmatics and evidence so that families benefit during a foundational life stage.

beyondblue (2011) *Clinical Practice guidelines for depression and related disorders- anxiety, bipolar disorder and puerperal psychosis-in the perinatal period. A guideline for primary care health professionals*. Melbourne: beyondblue: The national depression initiative.

Buist, A & Biliszta, J (2006) *The beyondblue* National *Postnatal Screening Program, Prevention and Early Intervention 2001-2005, Final Report.* Vol. 1: National Screening Program. Melbourne: beyondblue: the national depression initiative.

Kohlhoff, J et al. (2015). *Antenatal psychosocial assessment and depression screening in a private hospital*. Australian and New Zealand Journal of Obstetrics and Gynaecology. Retrieved online: Friday March 18th 2016.

ABSTRACT International Marce Conference September 2016

Submission type Full oral presentation

Title of paper An experiential way to attachment: Dance and Dance-Play

Presenters details Elizabeth Loughlin Dance Therapist, Parent–Infant Research Institute (PIRI) and Parent Infant Program, Acute Psychiatry Unit, Austin Health, Victoria, elizabeth.loughlin@austin.org.au; Sally Chance, Senior Dance Practitioner, Acorn Parent Infant Attachment Groups, Anglicare SA. sallychance@iprimus.com.au

Biography:

Elizabeth Loughlin, professional Dance Therapist clinician developed dance therapy as a group intervention for mothers with postnatal depression and their infants at the infant clinic, PIRI, and for individual mother and her vulnerable infant in the inpatient psychiatric ward. Her work is published in the dance therapy and health literature.

Sally Chance trained at the Laban Centre, London. A Fellowship from the Australia Council allowed Sally to explore the possibilities of dance with very young children and led to her ongoing practice, which uses dance as a fundamental aspect of the relationship between mother and baby.

Category: Hot Topics: Infant attachment /mother-infant interaction

Co-authors Professor Jeannette Milgrom, jeannette.milgrom@austin.com.au ; Drs Alan Gemmill, alan.gemill@austin.org.au; Chris Holt, chris.holt@austin.org.au **Institution:** Parent–Infant Research Institute, Austin Health ; **Co-authors** Dr Paul Aylward, Paul@actionrp.com.au Amanda Reinschmidt, Manager, Supporting Families, areinschmidt@anglicaresa.com.au; **Institution**: Anglicare, SA.

Background:

"The mother-infant interaction… is an elaborate dance choreographed by nature." Daniel N. Stern, 1977. *The First Relationship*

"The arts … ways of making important things and activities special." Ellen Dissanayake 1995. *Homo Aestheticus: Where art came from and Why*

Attachment is built on the early mother- infant mutual responsiveness and delight. Key is mother's attuned enlivened facial and bodily response to her new infant, and her infant's motives for companionship (Trevarthen, 1997). A mothers' postnatal mental health or her own past trauma can lead to a subdued response to her baby and difficulty in reading her infant's cues (Tronick & Weinberg, 1997), impacting on healthy attachment. The presentation proposes that dancing together in the hospital 'Intuitive Mothering' program (Loughlin 2009) and that dance-play in the 'Acorn' mother- infant program, offer an experiential way for mothers to connect with their infants, for the infants to feel they are seen, and for the mother –infant pair to 'rehearse' secure attachment.

Methods: For mothers with postnatal conditions or social, health stressors: interventions of dance-play with interesting objects encourage mother-infant relationship; dance in space heightens mother intentionality, vitality and expressiveness with baby (video excerpts). Evaluation tools include: Parenting Stress Index (Abidin, 1986), Karitane Parenting Confidence scale (Črnčec et al, 2008).

Results: Observed shifts in mother- infant enjoyment and responsiveness in shared play and dance within a time frame 8–14 weeks; Pre and post program improvements in parenting stress and confidence measures.

Discussion: Dance and dance-play offer pleasurable, enlivened experiences that can transform the moment for mother-infant. Further discussion could deepen the understanding of the experiential approach to attachment, and its place within the mother-infant therapies.

Reference

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Key words Dance, mother-infant, attachment

Financial support: Acorn Parent Infant Attachment Program - Hopscotch Foundation

Borderline Personality Disorder in the perinatal context: A rationale and suggested protocol for management

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The characteristics of borderline personality disorder present management difficulties in many clinical contexts. The perinatal period presents specific psychodynamic challenges for the borderline patient. Systemic and clinical factors specific to the obstetric and postnatal context add further complexity, contributing to the burden of care for such patients. There is increasing evidence of poor obstetric and neonatal outcomes for patients with borderline personality disorder. In this paper, a suggested management protocol, involving a multidisciplinary team, is proposed, with a focus on consistent, boundaried care, and supervision for members of the multidisciplinary team.

3 key words: Borderline Personality, Perinatal

References

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Pare-Miron V, Czuzoj-Shulman N, Oddy L, Spence AR, Abenhaim HA Effect of Borderline Personality Disorder on Obstetrical and Neonatal Outcomes. Womens Health Issues. 2016; 26:190-5.

Ricke AK, Lee M-J and Chambers JE. The Difficult Patient: Borderline Personality Disorder in the Obstetrical and Gynaecological Patient. Obstetrical and Gynaecological Survey 2012; 67: 495-502.

Theme – Implementation and policy

Implementation of FDV screening and intervention in WA Health and application in maternity services.

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Full oral presentation

Objective: To outline the implementation and challenges across WA Health of addressing FDV and responding to high risk groups, particularly women in the perinatal period.

Background: Family and Domestic Violence (FDV) affects women across the life span with 1:4 of women exposed to FDV in their life time. FDV is often experienced for the first time in pregnancy that makes targeted screening and intervention essential to reduce the risk of harm to these women and their babies. Women with existing mental health disorders are at increased risk of DV with an impact on maternal and fetal wellbeing. Concurrent drug and alcohol use, homelessness, and missed antenatal appointments compound detrimental outcomes raising maternal stress and impact on fetal brain development, hpa AXIS and mother-infant attachment, as well as have intergenerational consequences.

Method: A small team of mutli-disciplinary health professionals influenced different levels across the health system to focus on identifying and supporting women experiencing DV. The process included training to meet demands of workforce; working with specific teams such as mid-wives and child health nurses; high level engagement with senior staff and stakeholders for long term systemic change; and health promotion initiatives.

Results: The impact of FDV and how best to respond is becoming embedded through an increased numbers of systems within WA Health, in particular, within services working with women in the perinatal period. Seizing opportunities and thinking beyond the core work of education and training has resulted in protocol changes to screening; implementation of standard medical record number FDV forms that assist in clinical handover and data collection; wide circulation of FDV newsletter and website materials; and the creation of close working partnerships with committed stakeholders.

Discussion: The session will describe how to gain attention, the key challenges and the future direction in ensuring FDV remains on the agenda of WA Health.

World Health Organization. March 2015. Postnatal Care for Mothers and Newborns – Highlights from the World Health Organization 2013 Guidelines.

Howard LM, Oram S, Galley H, Trevillion K, Feder G (2013) Domestic Violence and Perinatal Mental Health Disorders: A Systematic Review and Meta-Analysis. PLoS Med 10(5): e1001452. Doi:10.1371/journal.pmed.1001452

Title: Translational Action-Research in the Development of a Childbirth and Mental Illness Service.

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Background: The Childbirth and Mental Illness (CAMI) clinic was established at King Edward Memorial Hospital, Western Australia in 2007 in recognition of the increased obstetric and psychosocial risk for women with serious mental illness. In 2015 the broader CAMI Service was developed, integrating preconception counselling, the CAMI antenatal clinic, inpatient mental health care at the Mother and Baby Unit (MBU) for antenatal and postnatal women, consultation-liaison (CL)mental health support during obstetric admissions and up to 12 months postnatal followup by the CAMI perinatal psychiatrist.

Objective: The aim of the CAMI service project was to provide translation of evidence-based practice within a values-driven framework. Consumer choice, family-centred and multi-systemic mental health and obstetric care were central to the assessment and interventions offered for women experiencing serious mental illness (SMI), particularly Schizophrenia, Bipolar Affective Disorder Type 1, and women with a history of Puerperal Psychosis. Continuity of the practitioner-patient relationship was prioritised.

Method: Review of the evidence-based literature was undertaken to establish the service parameters above. Referral pathways, intake decision making and existing clinical guidelines were all critically evaluated against the above parameters. The implementation of the CAMI service was undertaken along-side education and training sessions for staff and reviewed iteratively for best-practice by a committee of clinicians and consumer representation. An action-research methodology was employed to guide this process –with ongoing evaluation by consumer and stakeholder feedback.

Outcomes: Outcomes of this service implementation included improved within-service collaboration between CL and MBU mental health, obstetric, neonatal and allied health services. A shared-care partnership was developed with a community, not for profit organization and improved relationships were developed with general practitioners, community mental health services and other external stakeholders.

Discussion: The principal influences, development of the service plan, implementation and evaluation of the CAMI service will be described along-side the vision for ongoing extension of this model of care within perinatal mental health.

Key Words: Translational Perinatal Mental Health; Mental Illness, Action-Research Service implementation project

References:

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Background

Although 90% of women with perinatal mental illness are managed in primary care in the UK, very little is known about the outcomes for women, what good quality care looks like and what training GPs need to achieve the best outcomes for women (1, 2, 3). The Royal College of General Practitioners (RCGP) made perinatal mental health a clinical priority for three years from March 2014 and this has led to some clarification of the role in the UK.

Objectives of workshop

To present information about clarifying and developing the role of the GP in the UK

To explore the international perspective with workshop attendees:

To identify appropriate outcomes for women;

To seek examples of good practice and;

To discover how education and training of GPs, both as core training and continuing professional development, is approached in other countries

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Key words: perinatal mental health, Primary care

Development of a Scale to Rate Maternal behaviour among mothers with Postpartum Psychosis in Mother Baby units

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Objectives

Assessment of maternal behaviour is important in predicting risk and informing infant care plans both in the MBU and at discharge. There is only one scale - the Bethlem Mother Infant Interaction Scale that assesses risk and interaction; however it does not evaluate anxiety and reactions to separation or the ways in which a mother's psychopathology affects the mother-infant interaction.

Methods

Based on data from 100 mothers admitted in the Mother Baby unit, Bangalore, we developed a tool to rate different aspects of maternal behaviour in mothers admitted with postpartum psychosis. This tool is primarily meant to be used in a Mother Baby unit and uses multiple observations over a week and information from different informants for rating. It has six sections- Care for the infant's basic needs; Affectionate behaviour; Significant incidents; Overall assessment of safety; Handling separation from the infant and Psychopathology related to the infant.

Results

The scale has been found to have adequate inter-rater and test retest reliability. It has been pre-tested initially with 50 mothers and minor modifications have been made. The tool requires minimal training and can be used by doctors, nurses and other mental health professionals. We are currently establishing external validity using the Bethlem Mother Infant Scale and the subjective Postpartum Bonding instrument.

Conclusion

Based on initial data, the scale appears to have predictive validity in determining outcomes such as maternal behaviour at discharge and need for supervision or foster care.

Early relational withdrawal of infants jointly admitted in MBU and links with later development

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Objectives:

MBUs host very vulnerable infants requiring specific developemental care. The objective of the present research was to study in a population of infants admitted with their mothers in a MBU (i) frequency and risk factors associated with occurrence of early relational withdrawal; (ii) associations between early relational withdrawal and children's life environment and development between age 2-5.

Methods:

Data on babies and mothers (n =34) were retrospectively collected from medical records of dyads jointly admitted in the MBUs of the University Department of Adult Psychiatry, Bordeaux, France. Infant's relational withdrawal was rated from video recordings of mother-infant interactions, using the ADBB scale (Alarm Distress Baby scale, Guedeney, 2001). Univariate analyses were used to explore the associations between presence of early relational withdrawal and (i) demographic, maternal and environmental factors ; (ii) foster care, need for specialized schooling or need for psychological care when children are aged 2 to 5 years.

Results:

Early relational withdraval was present in 35% of infants jointly admitted. It was more

frequent (at trend level) when the mother had a history of chronic psychiatric disorder before current admission (83%) compared to mothers without such a history (17%) (p=0.09). Between 2 and 5 years, children who had presentend with a relational withdrawal during the initial joint admission benefited more frequently from psychological care (62.5%) compared to children without withdraval (12.5%) (p=0.04).

Conclusion:

One out of three of the infants jointly admitted with their mothers presented with relational withdrawal. As early relational withdrawal is associated with later infant's development, it should be screened systematically in these infants.

Key words: Joint care, infant early withdrawal, child development

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Postnatal depression in the ELFE cohort: issues from a multifactorial model

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Objectives

Incidence of postnatal depressive disorders (PNDs) is stable, despite a huge body of research that contributed to identify its risk factors. However, little is known on how these risk factors are interacting. This study aimed to explore the causal pathways between the risk factors and the onset of PNDs at 2 months post-partum, based on the interactive theoretical model of Milgrom, in women in general population.

Methods

We used data from the French child-parents cohort study "Etude Longitudinale Française depuis l'Enfance" (ELFE) aimed at following children and their parents from birth to adulthood (n=11 643). Information about maternal and infantile risk factors for PNDS were collected from the mother and medical records during the maternity stay and by phone from the mother at 2 months post-partum. PNDS were evaluated with the Edinburgh Postnatal Depression Scale (EPDS) at 2 months. Structural equation modeling was used to investigate the causal pathways between risk factors and PNDs.

Results

The model explained 18 % of the variance of the intensity of PNDs. We found a direct effect of spouse's prenatal support and baby's self-regulation on the severity of PNDS. Familial socio-economic status and maternal ability to understand the baby's cry played mediating roles, respectively in the association between spouse's prenatal support and baby’s self-regulation, and severity of PNDS.

Conclusion

These findings highlight the need to take into account interactions between risk factors and to integrate them in a psychosocial model. Prenatal economic environment and baby-related factors are potential key risk factors that should be better targeted in prevention programs

Keywords: postnatal depressive symptoms, risk factors, multifactorial model

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'Good Enough' Service Delivery: Promoting sustainable models of care for parent and infant mental health in rural communities

It has been well acknowledged that disparities exist between rural and urban areas for maternal health outcomes (Say et al 2014). While rural women living in the poorest nations appear to be at the greatest disadvantage, even in affluent nations such as Australia, there are higher rates of both maternal and foetal death in rural areas, compared with urban areas (Sullivan et al, 2008) and higher levels of pregnancy related risk factors (AIWH,2008). Rural women also more likely to experience stressors that undermine mental health (Holden et al 2013). These difficulties are compounded by fewer, and less specialised, maternal mental health care services available and barriers to access for rural families (Austin and Highet, 2011).

In this context**,** the capacity to deliver effective interventions can be limited and allocation of resources challenging. At Bendigo Health we have drawn upon Winnicott's (1953) concept of the **'**good enough mother**'** to inform our approach to service delivery**.** We prioritise the most vulnerable women and infants, while also supporting a range of agencies involved in mental health, maternity and early childhood intervention, with the aim of providing 'good enough' care. In this paper we describe three programs developed using this approach. First, the 'Complex Pregnancy Care Program', an intervention for higher risk families that aims to provide **a** structured approach and planning to address complex social issues associated with pregnancy, child birth and the care of newborn infants. Second we describe our 'Best Beginnings Program', an attachment based model to promote positive experiences of infant feeding and settling and finally we describe the 'Perinatal Emotional Health Service', which provides treatment and early intervention for women experiencing emotional and psychological distress during pregnancy.

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Prenatal psychological distress and access to mental health care in the ELFE cohort.

Bales M[1,2], Pambrun E[1,2], Melchior M[3], Glangeaud-Freudenthal NM[4], Charles MA[5], Verdoux H[1,2,6], Sutter-Dallay AL[1,2,6]

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Background:

Pregnant women are vulnerable to the deleterious impact of environmental stressors. The aims were to identify the environmental and pregnancy characteristics independently associated with prenatal psychological distress and access to mental health care.

Methods:

We used data from the French cohort Étude Longitudinale Française depuis l'Enfance (ELFE), a nationally representative cohort of children followed-up from birth to adulthood. Information about prenatal psychological status and access to mental health care was collected during the maternity stay. Maternal/pregnancy characteristics independently associated with psychological distress and access to mental health care were explored using multivariate analyses.

Results:

Of the 15,143 mothers included, 12.6% reported prenatal psychological distress. Prenatal distress was more frequent in women with very low economical status, alcohol/tobacco use, unplanned/unwanted pregnancy, late pregnancy declaration, multiparity and complicated pregnancy (high number of prenatal visits, prenatal diagnosis examination, obstetrical complications). Of the women reporting prenatal distress, 25% had a prenatal consultation with a mental health specialist and 11% used psychotropic drugs during pregnancy. Decreased likelihood to consult a mental health specialist was found in young women, with intermediate educational level and born abroad.

Limitations:

Causal inferences should be made cautiously as the questionnaire did not collect information on the temporal sequence between psychological distress and associated characteristics.

Conclusions:

Women with social and obstetrical vulnerabilities are at increased risk of poor mental health during pregnancy. Improving mental health care access during pregnancy is a public health priority.

Key words: pregnancy psychological distress, access to care, psychosocial factors

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Abstract

Background/Objectives: Exercise has well-established benefits on depression and weight-management in normative populations. However, its effectiveness at postpartum phase remains uncertain. To determine the effectiveness of exercise or physical activity (PA) interventions on postnatal depression (PND) and weight-loss, to identify exercise and PA modalities most effective in reducing PND symptoms and weight.

Methods: Systematic review process of RCTs and experimental studies comparing exercise or PA modalities (e.g., flexibility versus resistance training) relative to control groups. Data search included Cochrane Library (CENTRAL), MEDLINE, PsycINFO, EMBASE, CINAHL, Scopus and Science Citation Index.

Results: Of 10,136 studies retrieved, nine fulfilled inclusion criteria. Two implemented supervised exercise interventions, one using 'Yoga & Pilates' (1x 60 mins/session × 12 weeks) and one using resistance (v flexibility) training focusing on major muscle groups (2/week × 18 weeks). Yoga & Pilates decreased PND and body mass index (BMI); though resistance training did not. Four studies applied unsupervised PA interventions (e.g., walking) with varying duration (i.e., 3-18 months; e.g., 30 mins/session ×1/week) suggesting changes in either of the variables. Two studies showed significant declines in BMI but no changes in PND; while two showed no changes in PND or BMI. One study trialed supervised walking intervention reported decline in BMI but no change in PND. An individualised home-based program compared with control group (124 mins/week × 12 weeks), showed improvements in PND only. One study trialed a low impact aerobic, stretching, and strengthening intervention (50-60 mins × 3days a week ×12 weeks); showed improvement in psychological well-being, but no BMI change.

Conclusion: Based on current data available, the effectiveness of exercise or PA interventions on PND and weight-loss are inconclusive.

Key Terms: Exercise, Postnatal depression, Weight-loss

References: (Ko, Yang, Fang, Lee, & Lin, 2012); (Keller, et al., 2014)

Background

To date perinatal screening has involved pen-and paper approaches to identify the presence of known risk factors and common mental symptoms of depression and anxiety using EPDS. Despite significant investment and activity under Australia's NPDI, manual approaches to screening are inefficient (time, cost), prone to scorer error (up to 29%), and rarely available in other languages. Together with the lack outcome data to inform the uptake and outcomes of screening, current approaches remain unmeasurable and unsustainable.

Methods
To address these inefficiencies and ultimately build a reliable and sustainable framework, a digital screening platform; iCOPE, has been developed and tested within a maternal and child health setting.

Results
This presentation will detail the outcomes of this Trail and demonstrate how the platform addresses current challenges surrounding screening. Following screening of 80 participants over a seven-month period, this study provides evidence of the Platform's high acceptability by consumers (100%) and health professionals. Efficiencies include low screening time (average 6-7 minutes), the ability to conduct screening outside of the consultation and collection of additional data items for select individuals (through algorithms). The automated collection of data and instant reporting via individual login (health professionals) and consumers (SMS or email) offer additional clinical and economic advantages.

Conclusion
In light of these outcomes, expansion of the iCOPE Platform is currently underway and includes it's adaption into other languages, integration with e-referral pathways, building of additional capabilities and deployment across a range of clinical and research settings.

Key words
perinatal screening, innovation, digital screening

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Background

The perinatal period is the time is a woman's life when she is *most likely* to develop mental health conditions. Hence, often communication approaches are been positioned within this *mental health/illness* context. However, the impact of this positioning on consumers appears is likely to be counter productive.

Methods

Extensive qualitative research originally undertaken by *beyondblue* with women who had a history of perinatal (pre and/or postnatal) depression and/or anxiety, revealed a number of barriers to identification of symptoms, accessing of information and treatment. To explore the extent to which these themes were reflected across the population, an online survey of over 1200 women who had a personal history of perinatal depression and/or anxiety was undertaken.

Results

Research findings reveal that women view mental health conditions that occur within the perinatal period as conceptually different to those that occur at other times. Hence common signs and symptoms are viewed in the context of pregnancy or having a baby, as opposed to that of an emotional/mental health condition. This is compounded by high expectations and the impacts of stigma – both of which directly impact upon denial, disclosure and help seeking.

Conclusion

To address these challenges, information surrounding emotional and mental health needs to be repositioned. Framing information in the context of a mental illness is likely to be to considered irrelevant or is likely to be too confronting for the consumer.

Key words

Community awareness, stigma, help-seeking

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Looking to the Future, When Father Makes Three, What Can the Matter be?

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The objective of this workshop is to introduce participants to work with families affected by depression. This includes outlining a step by step approach to engaging fathers facilitating co-parenting and also recovery in relationships following maternal Post Natal Depression.

The longitudinal effects of perinatal depression and related disorders will be briefly discussed and demonstrated in DVD excerpts that highlight the impact of persisting or recurring depression.

An approach to building workers skills and confidence in maintaining a family focus will be demonstrated with DVD excerpts of clinical work in a case study. These will target engaging fathers, addressing his resistance to being involved and exploring his parenting role.

Expected outcomes for participants are to:

(i) better understand persisting or recurrent perinatal depression's impact on family systems
(ii) further develop skills in engaging fathers
(iii) be more aware of available evidence based interventions
(iv) be more confident in accessing e-mental health learning resources to consolidate family-focused, and father engaging practices
(v) be better motivated to access and provide resources for fathers

There will be opportunities for discussion.

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Key Words: fathers, psychological treatment, E-mental health

Title

An Exploration into Neurobiology of Postpartum Psychosis

Background

The neurobiology of postpartum psychosis (PPP) remains unclear. We studied some candidate gene loci including, Estrogen receptor alpha (ESR1), Hemicentin (HMNC1), Methyltransferase like 13 (METTL13), and Serotonin Transporter (5HTTLPR) gene polymorphisms for association with PPP. Cytokine changes were studied to assess the role of immunological factors in PPP.

Methods

Women with PPP (n=105) and healthy controls (n=102) were genotyped for the above mentioned SNPs. Real time-PCR and gel based methods were used for genotyping of ESR1 (rs9340799; rs2234693), HMCN1 (rs2891230), METTL13 (rs2232825) and 5-HTTLPR loci.

For the cytokine changes, women admitted with first-onset PPP (n=20) were compared against healthy postpartum (HPP, n=20), healthy non-postpartum (HNPP, n=20) and women with acute transient polymorphic psychosis (ATPP, n=20). Serum cytokines were measured using cytometric bead array.

Results

T allele of METTL13 (rs2232825) was significantly higher among PPP as compared to healthy controls (p=0.02). No significant associations were found with other SNPs.

IL-6 and IL-8 levels were significantly elevated in the PPP group as compared to HNPP (p = 0.05) but not with HPP. IL-17A was significantly elevated in the PPP when compared to HNPP (p=0.03).

Discussion

The postpartum period is known to be associated with significant hormonal changes. METTL13 activity is reported to regulate estrogen receptor induced gene transcription. Our results suggest that METTL13 rs2232825 locus or a linked functional locus may modulate the vulnerability to PPP. IL-17A is reported to enhance the expression of pro-inflammatory cytokines and resultant neuronal damage. Findings suggest a role for METTL13 and pro-inflammatory cytokines in manifestation of PPP.

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Title: *Cry Baby*: An online infant sleep and settling program.

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Objectives/Background: Anticipatory guidance for unsettled infant behaviour, can improve infant behaviour and parent depressive symptoms[1,2]. This guidance might be appropriately delivered in an online program, however, little is known about parent engagement with online programs in early infancy. We developed *Cry Baby*, a brief online program, and aimed to (1) establish whether weekly email prompts and/or encouragement from a Maternal and Child Health Nurse (MCHN) increased use of the program, and to (2) examine the characteristics of parents who took part.

Methods: 168 parents of infants aged 2-12 weeks, received access to the online program (Mean infant age (weeks)= 5.32, SD=3.10). Parents were recruited via MCHN, or a notice published on the Raising Children's Network (RCN) website. Parents were randomised to receive either the online program alone, or the online program plus weekly email prompts. Follow up data was collected at 4 months of infant age.

Results: Preliminary data suggests recruitment via RCN attracted a more demographically diverse sample than recruitment via MCHN. Those recruited via their MCHN were more likely to complete follow up data, as were those who received weekly email prompts. Reported use of program strategies, depression symptoms, parent fatigue and cognitions about infant sleep, did not differ by mode of recruitment or condition allocation.

Conclusion/Discussion: Engagement and retention to online parenting programs in the early postpartum period might be increased by use of weekly email prompts and encouragement from a health nurse.

Keywords: unsettled infant, online program, depression

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Are Somatic Symptoms during pregnancy an indicator of Psychological Distress? – a study from India

Geetha Desai, Supraja T A, Prabha S Chandra

Background: While somatic symptoms during pregnancy are common and are considered `normal', they maybe a manifestation of underlying depression and anxiety, especially in cultures where distress is expressed through bodily symptoms. This study examined the profile of somatic symptoms pregnancy and its relationship to nutritional factors and psychological distress.

Methods: The investigation was conducted as part of the Prospective Assessment of Maternal Mental health Study (PRAMMS). 603 pregnant women attending a community antenatal centre, under 20 weeks of pregnancy, were invited to participate in the study. The assessments included socio demographic details, anthropometric and biological parameters, Scale for Assessment of Somatic Symptoms (SASS) and Edinburgh Postnatal Depression Scale. SASS provides both the number of somatic symptoms and their severity score.

Results: The mean age was 23±3.39 and mean years of education was 3.12±0.960. 65% were from low income families, 45% were primiparous and 74% had at least one somatic symptom. The most common somatic symptoms were weakness of body (40%), lethargy (39%), nausea (36%), backache (24%), pain in extremities (21%) and headache (19%). The total number of symptoms ranged from 1 to 21 with a median of 2. Women with higher scores on EPDS had significantly higher pain symptoms. The EPDS total score positively correlated with the number of somatic symptoms (0.286; $p<0.001$) and the severity of somatic symptom scores (0.328; $p<0.001$). Results of multiple Chi-square tests of independence revealed that symptoms headache, backache, pain in extremities and weakness of mind differed significantly by presence of antenatal depression..

Conclusion:

In pregnancy, somatic symptoms maybe an indicator of depression. The nature, number and severity of symptoms appear to have a relationship with depression. It is essential therefore, to assess somatic symptoms during pregnancy as it maybe an idiom of antenatal depression.

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Self-identified antenatal anxiety and early infant outcomes

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Background/Objectives: Antenatal anxiety has been demonstrated to have a powerful effect on mothers and babies, in particular, shortening of gestation[1]. This analysis of a population-based survey explored if self-identified antenatal anxiety predicted birthweight, gestational age, admission to a neonatal unit, development of mother-infant attachment and maternal perception of the infant at three months.
Methods: A population-based survey of 2722 (45% response rate) women who gave birth October-December 2014 in Northern Ireland[2] provided data on their experience of care through pregnancy to the postnatal period. The survey was completed three months after birth. Women were asked if they had experienced anxiety in pregnancy as part of a list of physical and psychological health problems. Regression analyses were undertaken to identify associations of self-identified antenatal anxiety with infant outcomes, while controlling for maternal age, living with partner, ethnicity, maternal health in pregnancy and social deprivation.
Results: 10.1% of women reported that they had experienced anxiety in pregnancy. This self-identified antenatal anxiety was associated with lower gestational age at birth, a delay in the development of mother-infant attachment and women perceiving their infant to be 'more difficult than average' at 3 months postpartum. While birthweight was lower in the anxiety group this did not reach statistical significance.
Conclusions: A simple question asking women to self-identify if they have experienced anxiety in pregnancy predicted some key early infant outcomes. The findings will be discussed with reference to bio-psychosocial models, measurement, and perinatal maternal health and well-being.

Key words: anxiety infant outcomes

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Sequential Simulation – an innovative educational tool

Objectives / Expected outcomes

Due to the increasing demand for improved Perinatal Mental Health [PNMH] education[1] and integrated care within the NHS, the Health Education England NW London funded PNMH Community Education Provider Network [CEPN] team embarked on creating innovative teaching tools to address this need and facilitate multi-professional collaborative learning.

One of the many learning tools used was Sequential Simulation[2]. SqS grants us a unique, lifelike and accurate portrayal of the pivotal episodes in a woman and her family's journey.

SqS facilitates the connection of our interactions with possible outcomes in the future, allowing imaginative thinking about the advice and care we deliver. This leads to a more creative view of how our interactions and interventions can be enhanced. Because this method of learning has a focus on the most crucial, fundamental moments and contacts in the journey of women and their families, often at the point of transferring care or liaison, it stresses the importance of collaboration, integrative working and high quality communication.

Our project was developed to ameliorate the gaps in knowledge and skill around perinatal mental health across primary, secondary and third care sectors. We have found that health care workers increasingly favour and evaluate SqS as an enjoyable and effective tool which is incorporated into our blended learning approach exploring PNMH through evidence, and the medium of art, film literature and social media.

We have used SqS to educate health care professionals across the boroughs of NW London and beyond and look forward to sharing this work at the 2016 International Marcé Society Conference.

Key Words

Sequential simulation, collaboration, communication

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Falling between the cracks

Perinatal mental health[PNMH] – the poor relation of maternal medicine?

Background

Depression is the commonest complication of pregnancy ahead of diabetes and hypertension. 20% of women develop mental illness during the perinatal period with a long-term cost of £8.1billion annually[1].

Maternity units offer specialist diabetes clinics, many have Obstetric Medicine clinics; only 4% have a multidisciplinary PNMH service.

We recognised that women with mental health problems were not receiving optimal care. Is this the role of psychiatrists and psychologists? Where do our maternal medicine skills fit in? How can we optimise maternal mental health and outcome for the child?

Methods

We decided that multidisciplinary education would improve the ability of healthcare professionals to deliver and women to access PNMH care. In 2014-6 we received funding from HEENWL to develop a collaborative educational project. A team of midwives, GPs, psychiatrists, maternal medicine obstetricians and women developed a training strategy across all areas of maternity care.

Results

Those attending training events[n=270] became more knowledgeable[74%] and confident[100%]. Clinically this translated into more referrals to Pre-conception Clinic[250%], talking therapies and postnatal wellbeing groups[>200women]. We engaged with over 1000 members of the public and every woman at booking received written information about PNMH and how to access support; we developed animated patient stories - http://tinyurl.com/gms2bhd / https://youtu.be/FSH-phBVXzQ [2]

In March 2016 we hosted a conference in NW London with 120 attendees. See Twitter #NWLPNMH16

Conclusion/Discussion

Our project identified areas of poor knowledge. Importantly it forged close working relationships across seemingly impenetrable healthcare barriers, and resulted in closer understanding of how to deliver PNMH services. It was a significant driver in successful commissioning of a collaborative PNMH clinical service recognising the strength of our multidisciplinary approach.

Key words

Maternal medicine, education, collaboration

References

1. http://everyonesbusiness.org.uk/wp-content/uploads/2014/12/Embargoed-20th-Oct-Final-Economic-Report-costs-of-perinatal-mental-health-problems.pdf

2. Animated patient stories - http://tinyurl.com/gms2bhd / https://youtu.be/FSH-phBVXzQ

Objectives/Background: The "Day Center for the Care of the Mental Health of Women (Postpartum Disorder)" was established by the Non-profit/Non Governmental Organisation, "Fainareti" in 2008 in Athens, Greece. The purpose of this presentation is to provide an overview of the structure and novel operation of the Day Centre.

Method: Standard operating procedure of the Day Center was examined along with the annual reports, officially submitted to the supervising authority: Department of Mental Health, Greek Ministry of Health.

Results: The Day Center's main goal is the early detection (based on the pivotal role of midwifes during the perinatal period), and treatment of perinatal mental disorders. Trained midwifes, acting as first- wave responders evaluate women for perinatal mental disorders risk factors, emotional or behavioral alterations and direct clients to mental health specialists. The team at Day Center includes 5 midwives, 3 psychologists, 2 psychiatrists, a physical trainer and administrative staff. It has provided an array of perinatal mental health services to over 4.000 pregnant women, new mothers and their families, since its establishment with: a) continuous psycho-education and preparation for parenthood, b) psychotherapy, c) psychiatric evaluation, d) medication treatment, e) continuous follow-up, and f) conditioning through physical training.

Conclusion: The Day Centre is the only community mental health setting in Greece, with respect to perinatal mental health, which utilizes a multidisciplinary, psychosocial model for pre and postpartum care.

Key words (3): Primary Day Center

References (minimum of 2):

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Integrating Maternal Mental Health Care in the Pediatric Medical Home: Treatment Engagement and Child Outcomes

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Background/Objectives: Maternal depression is associated with poor child health outcomes, and women face many barriers to accessing mental health care. This study assesses the effect of an integrated collaborative care model on maternal and child health outcomes and utilization.
Methods: A maternal mental health clinic (MMHC) was integrated into an urban academic pediatric primary care practice serving low-income families. Mothers were screened during routine well-baby visits for post-partum depression; positive screens were referred to the MMHC. Data were collected over a period of 12 months on maternal engagement and child outcomes (compared to siblings of index children seen in the clinic prior to enrollment in MMHC).
Results: Thirty-nine MMHC mothers enrolled in the study from December 2013 to July 2015. Fifty-eight percent had a prior psychiatric diagnosis, and 58% had a history of trauma. More than half communicated with the case manager via text messaging and 60% had at least one home visit. Mothers attended an average of 9 psychiatrist sessions (M=8.7, SD = 8.4); 60% had at least 3 sessions in 6 months. Both regular text messaging and home visiting by the case manager were associated with a higher number of psychiatrist sessions attended (B = 6.1, p = .03 and B = 5.7, p = .04, respectively). When MMHC children were compared to their siblings prior to enrollment, a higher percentage of MMHC intervention children had vaccinations up to date at one year of age (78% vs. 43%, p = .02) and completed the routinely recommended well-child visits (65% vs. 35%, p = .03).
Conclusions/Discussion: Engaging high-risk women with maternal mental health support and treatment in the pediatric primary care setting shows promising outcomes for both maternal and child health. Case management and home visitation appear to boost maternal engagement and improve child outcomes.

Abstract: Perinatal mental health education in Australia: Past, present and future
Marce Society Education Symposium. Anne Sved Williams

Background: Educating health care practitioners in perinatal mental health for the benefit of families has been organized in Australia through the individual efforts of passionate psychiatrists and psychologists. In addition, at the National level, a collaborative group of experts met to identify relevant teaching on perinatal mental health during the 6 year funding of a national screening program[1]. Since cessation of funding, new initiatives have commenced, for instance postgraduate teaching for midwives, but there has been little attempt to identify the most salient information needed for practitioners in different settings and disciplines.

Methods: Themes identified in a previous international collaboration on the teaching of perinatal mental health at primary, secondary and tertiary levels[2] is used as the basis for a new survey of universities and teaching hospitals in Australia and information offered is collated.

Results: Will be presented, with an analysis of commonly occurring themes, and information which experts consider vital in varied settings with a program from one State (South Ausralia) highlighted as an example.

Conclusion/Discussion: Whilst common themes are identified, local preferences have so far been influential in programming. Discussion will focus on the utility of modes of teaching, and themes chosen, and how differences in health systems internationally can be used to highlight the most appropriate information to teach in different settings.

Key words: Education Australia

References:

1. 35. National program for depression associated with childbirth: the Australian experience, Buist A, Ellwood D, Brooks J, Milgrom J, Hayes B, Sved-Williams A, Barnett B, Karatas J, Bilszta J, 2007 Clinical obstetrics and Gynaecology, 21:2, 193-206.
2. Chapter 15: **Training healthcare professionals for the assessment and management of perinatal depression and anxiety** by C Jane Morrell, Jan Cubison, Tom Ricketts, Anne Sved Williams, Pauline Hall, 2015, in Milgrom J and Gemmill A, (Eds) Identifying Perinatal Depression and Anxiety: Evidence-based Practice in Screening, Psychosocial Assessment and Management, Wiley

Full Oral Presentations (15 minutes) OR Poster Presentations

Bridging the Gaps For New Parents

1. **Objectives/Background**

   Timothy O'Leary and Kellie Edwards were engaged by the Nillumbik Shire Council to identify the 'gaps' faced by new parents between their Key Ages and Stages Visits, and to them design an early-parenting program that would bridge these gaps.

2. **Methods**

   Focus groups were held with staff and parents, which identified the need for programs prenatally, and during the first months. Later gaps were identified when the baby becomes a toddler and when the toddler becomes a pre-schooler. It was also clear that mother and father sessions were needed. A review of the literature noted the importance of fathers, the need for sustaining mothers and the emerging findings from Growing Up in Australia: The Longitudinal *Study* of Australian Children (*LSAC*) which highlighted the need for parents to help their children to develop self-regulation and social-skills.

   Results

   Parents reported their greatest difficulties when their skills and knowledge base fell short of their current parenting challenges. It was also identified that 'depleted mother syndrome', stress and work-life difficulties exacerbated these parenting challenges. The importance of infant mental health, mindful-parenting, couple-parent wellbeing, have been built-in to the program.

3. **Conclusion/Discussion**

   Tim and Kellie have utilised videos and strong visual-tools to help parents to engage with the program. A feature of the program has been to support parents to better manage their stress to raise children with great self-regulation and social-skills, showing how their early parenting affects brain function, especially during adolescence.

4. **Three Words:** 1. Mindfulness 2. Early-Parenting 3. Confidence
5. **References** (minimum of 2)

Australian Institute of Family Studies. (2015) The Longitudinal Study of Australian Children Annual Statistical Report 2014. Melbourne: AIFS.

The Effects of Father Involvement: An Updated Research Summary of the Evidence Inventory © Centre for Families, Work & Well-Being, University of Guelph, 2007

Title of symposium: Prenatal stress, fetal programming and epigenetics.
Theme category: Cutting edge research
Theme subcategory: Epigenetics/fetal programming.
Chairperson: Vivette Glover

Abstract
Microbiota of meconium in newborns is associated with pregnancy specific anxiety mothers experienced during pregnancy.

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Objectives: Emerging evidence shows that newborn infants' meconium is not sterile and the bacterial transmission between a mother and her infant takes place in utero via an unknown transmission mode. So far, little is known about whether mother's psychological well-being, measured by antenatal mood and anxiety, influences transmission of bacteria in utero from mothers and infants.

Methods: The first intestinal discharge (i.e., meconium) from the 148 newborns was collected at birth. The meconium microbiome was profiled using multi-barcode16S rRNA sequencing followed by taxonomic assignment and diversity analysis. This study aims to assess the diversity of the meconium microbiome and determine if the bacterial community is affected by mother's antenatal anxiety and depression. Various maternal psychological factors during pregnancy, including pregnancy-specific anxiety, state and trait anxiety, depression, and traumatic symptoms were correlated with different bacteria.

Results: We confirmed that the meconium samples were not sterile and contained diversified microbiota. Multivariate regression analysis showed that the most robust predictor for the overall meconium microbiota composition was pregnancy-specific anxiety (p-value=0.001). However, neither state, trait anxiety, depression, nor perinatal post traumatic symptoms were predictors of the meconium microbiota. At specific taxa level, the greater pregnancy specific anxiety during pregnancy, the lower level of Enterococcaceae family (i.e., Enterococcaceae, comamonadaceae, enterococaceae, moraxellaceae, and enterococcacea) was found in the infant meconium (p-value=0.00025, r=-0.42).

Conclusions: Our study further supports evidence that meconium contains diversified microbiota and suggests that the initial colonization of the gut flora may start prior to birth. Furthermore, the meconium microbiome of babies born to mothers with greater pregnancy-specific anxiety is less enriched for specific bacterial OTUs. These findings can enhance our understanding of a non-genetic risk of transmission, and can potentially help design novel preventive measures for suboptimal development among children of anxious women.

3 key words: infant microbiome, maternal antenatal mood and anxiety, pregnancy-specific anxiety.

References

Johnson CL, Versalovic J (2012). The human microbiome and its potential importance to pediatrics. Pediatrics 129:950-960.

Hu J, Nomura Y, Bashir A, Fernandez H, Itzkowitz S, Pei Z, Stone J, Loudon H, Peter I. (2013). Diversified microbiota of meconium is affected by maternal diabetes status. PlosOne8 (11); 1-9.

Maternal Stress and Mood May Influence Placental HPA Function in Relation to Preterm Birth

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Objective/Background:
The relationship between perinatal stress and preterm birth (PTB) is mediated by cortisol in the 2nd, but not 1st or 3rd, trimester of pregnancy. As the enzyme 11-beta-hydroxysteroid dehydrogenase type 2 (11BHSD2) is produced by the placenta and converts cortisol to cortisone, a ratio of these two corticosteroids is representative of placental 11BHSD2 activity. The objective of this study was to determine if the placenta plays a role in this relationship by assessing cortisol/cortisone ratios in women who had a PTB versus those who delivered at term.

Methods:
Women were enrolled at <16 weeks gestation and followed prospectively. Measures of "stress" included: the Perceived Stress Scale (PSS), the Center for Epidemiologic Studies Depression Scale (CESD), and the State-Trait Anxiety Inventory (STAI), completed at 16, 22, 28, 34 and 40 weeks gestation. Corticosteroid concentrations (cortisol, cortisone) were measured in 3cm segments of maternal hair at ~16, 28, and 40 weeks, retrospectively approximating 1st, 2nd, and 3rd trimester total corticosteroid production.

Results:
Of 33 participants, 7 had a PTB. Scores on the PSS and CESD at 16 weeks gestation were correlated with earlier gestational age at delivery (r= -0.26, and r= -0.27, P=0.01) as were 2nd trimester hair cortisol and cortisone (r= -0.29 and r=-0.32, p<0.01). A trend towards a higher hair cortisol/cortisone ratio was noted in women who had a PTB in both the 1st (p=0.4) and 2nd (p=0.2) trimester compared to those who delivered at term.

Conclusion/Discussion:
Second trimester stress and mood may influence placental 11BHSD2 activity in relation to PTB. Recognition and mitigation of early pregnancy stressors may reduce this risk.

3 Key words: Stress, Mood, Preterm Birth

References:
Hoffman MC, Mazzoni SE, Wagner BD, Laudenslager ML, Ross RG. Measures of Maternal Stress and Mood in Relation to Preterm Birth. Obstet Gynecol. 2016 Mar;127(3):545-52: PMID: 26855101

Togher KL, O'Keeffe MM, Khashan A3, Gutierrez H4, Kenny LC, O'Keeffe GW. Epigenetic regulation of the placental HSD11B2 barrier and its role as a critical regulator of fetal development. Epigenetics. 2014 June;9(6):816-22.

Adverse Childhood Experiences & Psychological and Physiologic Stress in Pregnancy

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[2] University of Colorado Department of Psychiatry, Aurora, Colorado, USA
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Objective/Background:
Adverse Childhood Experiences of pregnant women are associated with outcomes including lower birthweight and gestational age at delivery, long-term mental and physical health problems that extend into adulthood, and hypothalamic-pituitary-adrenocortical axis (HPA) dysregulation. The objective of this study was to determine whether recalled childhood trauma predicts maternal stress and mood and both maternal and infant HPA function in pregnant women and their newborns.

Methods:
Women were enrolled at <16 weeks gestation and followed prospectively. The Adverse Childhood Experiences (ACE) scale was used to quantify childhood trauma and compared with: Perceived Stress Scale (PSS), Center for Epidemiologic Studies Depression Scale (CESD), and the State-Trait Anxiety Inventory (STAI) scores completed at 16, 22, 28, 34 and 40 weeks gestation. Corticosteroid concentrations (cortisol, cortisone) were measured in 3cm segments of maternal hair at ~16, 28, and 40 weeks, retrospectively approximating 1st, 2nd, and 3rd trimester total corticosteroid production. Newborn hair was cut on the day of birth and represents hair grown during fetal life.

Results:
Of 33 participants with complete information, ACE scores significantly correlated with: 16 week PSS and CESD scores ($r=0.22$ and $r=0.23$, $P<0.05$); first trimester maternal hair cortisol and cortisone concentrations ($r=0.66$ and $r=0.43$, $p<0.05$); and fetal (newborn) hair cortisol concentration ($r=-0.47$, $p=0.01$). No significant correlations were noted at other pregnancy time points, or in relation to gestational age at delivery or birthweight.

Conclusion/Discussion:
Adverse Childhood Experiences of pregnant women are associated with higher perceived stress, depressive symptomatology, and maternal corticosteroid production in the first trimester and lower fetal hair cortisol concentration at delivery. These data suggest a multigenerational influence of childhood traumatic experiences on maternal mental health and both maternal and fetal HPA function.

3 Key words: Adverse Childhood Experiences

References:

Smith MV, Gotman N, Yonkers KA. Early Childhood Adversity and Pregnancy Outcomes. Matern Child Health J. 2016 Apr;20(4):790-8.

Danese A, Moffitt TE, Harrington H, Milne B, Polanczyk G, Pariante C, et al. Adverse childhood experiences and adult risk factors for age-related disease. Archives of Ped and Adol Med. 2009;163(12):1135-1143.

Severe Mental Illness and the Risk of Child Abuse Perpetration

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Objectives/Background: Despite a dearth of literature, parental mental illness is often cited as a major risk factor for violence against children. Studies often conflate mental illness with substance abuse. We sought to clarify the risk of child abuse perpetration by parents with treated and untreated serious mental illness. *Methods:* Therefore, we re-analyzed the MacArthur Foundation Study on Mental Illness and Violence (a large study with clearly defined cases of mental illness, community controls, clear definitions for violence, and collateral data) regarding prevalence of violence against children. *Results:* Of 1136 subjects discharged from psychiatric hospitals, 30 committed violence towards a child (2.6%) in the following 10 weeks. Subjects who were parents were categorized into Serious Mental Illness (SMI, 7.0% of whom committed violence towards a child), Substance Abuse alone (SA, 3.3%), both SMI and SA (3.6%), or those who did not meet criteria for SMI or SA (8.3%). 41 (13.7%) of those parents in the community comparison group committed violence towards a child in the 10 weeks. *Conclusion/Discussion:* Our analysis suggests that treated serious mental illness in a parent does not translate to increased risk of violence, and in fact patients who have been admitted to an acute psychiatric facility appear to be at lower risk of abusing their children than parents in the community.

Key words: schizophrenia, bipolar, child abuse

References:

Jacobsen, T., Miller, L. J., & Kirkwood, K. P. (1997). Assessing parenting competency in individuals with severe mental illness: A comprehensive service. *Journal of Mental Health Administration*, 24(2), 189-199.
Monahan, J., Steadman, H. J., Robbins, P. C., Appelbaum, P., Banks, S., Grisso, T., ... & Silver, E. (2005). An actuarial model of violence risk assessment for persons with mental disorders. *Psychiatric services*.

Enabling Breastfeeding in the Presence of Maternal Mental Health Difficulties: A Perinatal Psychiatrist and GP Lactation Consultant Working Together to Optimise Care.

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[4]Clinical Senior Lecturer, School of Women's and Infants Health, University of Western Australia, Perth, Australia.

Background

There is evidence that antenatal anxiety and depression is related to early breastfeeding cessation.[1] Increased breastfeeding self-efficacy in the early weeks is related to higher rates of exclusive breastfeeding, and reduced rates of depressive symptoms at 6 months.[2] Previous studies have described a team approach to management of breastfeeding difficulties

Method

Women with mental health difficulties and a desire to breastfeed were managed by a psychiatrist and a family physician/lactation consultant in a public perinatal mental health service. Therapeutic interventions included joint sessions where the physical and psychological aspects of breastfeeding were explored in the context of a shared understanding of the patients' mental state.

Results

Two de-identified cases will be presented - a woman with a history of complex trauma, who was highly motivated to breastfeed but experienced flashbacks during breastfeeding, and an anxious mother with triplets born at 33 weeks gestation. Breastfeeding goals were explored, and an individualized plan was made for each mother, bearing in mind breastfeeding goals, the infants' needs, and the need for maternal symptom control and adequate sleep. Full breastfeeding was not the outcome, but both mothers felt that providing breast milk for their babies improved their psychological wellbeing. Education of midwifery and nursing staff around the interaction of mental health and breastfeeding issues facilitated a flexible, empathic approach.

Discussion

These cases illustrate the benefits of a team approach to psychiatric care and breastfeeding support and consideration of the woman's individual

breastfeeding goals and priorities whilst being mindful of her mental health needs.

Keywords

Breastfeeding, anxiety, trauma

References

1. Ystrom E. Breastfeeding cessation and symptoms of anxiety and depression: a longitudinal cohort study. *BMC Pregnancy Childbirth.* 2012;12:36.
2. Henshaw EJ, Fried R, Siskind E, Newhouse L, Cooper M. Breastfeeding Self-Efficacy, Mood, and Breastfeeding Outcomes among Primiparous Women. *J Hum Lact.* Aug 2015;31(3):511-518.

Gambling harm and the Dyadic Relationship: Infants of Parents with Gambling Addiction.

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In-Conference Workshops or Full Oral Presentation

Abstract

The presentation will unfold from clinical observations supported by the most recent research on gambling harm and infant studies. It will contribute to new insight of the impact of gambling harm on families, focusing on infants and the dyadic relationship.

There is a vast body of work on the impact of substance misuse on infants and the interventions required by those high-risk families, little has been done to look at the infant-parent relationship and what is like for children to grow up in families where the parent/s are struggling with Gambling Addiction and impact of gambling harm, either on its own or often with the presence of co-morbidity (depression, PTSD), on the family environment, including infant-parent relationship. Therefore there is a need to bring more focus on how parental psychosocial issues; financial hardship and domestic violence, stemming from gambling addiction can be considered a high-risk environment for the infant/s, which can compromise the child's future outcome.

Clinical work can provide considerable evidence of the association between parental difficulties, antenatal depression, gambling harm and the complex needs of these families however, there is at present limited research and guidance for practitioners on how these problems affect parenting, infant-parent relationship and child's outcome, in the presence of gambling harm. It is important to ensure infants visibility for their present and future wellbeing as adults.

Key words: Gambling Harm, Infants, Depression.

References

Shead, N.W., & Hodgins, D.C. (2009). Affect-regulation expectancies among gamblers. *Journal of Gambling Studies, 25*, 357-375

Suomi, A., Jackson, A.C., Dowling, N.A., Lavis, T., Patford, J., Thomas, S.A., Harvey, P., Abbott, M., Bellringer, M.E., Koziol-McLain, J. & Cockman, S.

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Early prenatal interview and antenatal education for childbirth and parenthood: Associated psychosocial and obstetric characteristics in women of the ELFE cohort.

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4 INSERM UMR_S 1136, Institut Pierre Louis d'Epidémiologie et de Santé Publique/Pierre Louis Institute for Epidemiology and Public Health, Equipe de recherche en épidémiologie sociale (ERES)/ Department of Social Epidemiology

5 Inserm UMR 1153, Obstetrical, Perinatal and Pediatric Epidemiology Research Team (Epopé), Center for Epidemiology and Statistics Sorbonne Paris Cité, DHU Risks in pregnancy, Paris Descartes University

6 Mixed Unit ELFE, INED, INSERM, Paris, France.

7 University Department of Adult Psychiatry, CH Charles Perrens

Objectives:

Early prenatal interview (Entretien prénatal précoce [EPP]) is aimed at defining with couples their physical, psychological and social needs during perinatal period. Antenatal education for childbirth and parenthood (Préparation à la naissance et à la parentalité [PNP]) is aimed at promoting global perinatal health. The objective was to identify the psychological, demographic and obstetrical characteristics independently associated with participation in: (i) an EPP; (ii) a PNP.

Materials and methods:

Multivariate analyses were applied to data collected during the maternity stay of mothers whose children were included in the French cohort French Longitudinal Study since the Childhood (ELFE), a nationally representative cohort of children followed-up from birth to adulthood.

Results:

Among the 14,595 mothers of the sample, 33% had an EPP and 52% a PNP. Primiparous mothers, born in France, with high educational level, employed or unemployed, with psychological difficulties more often benefit from EPP and/or PNP. Women who were young, benefiting from free health insurance (Couverture Maladie Universelle [CMU]), with unplanned pregnancy, with less antenatal care and obstetrical complications less often benefit from PNP.

Conclusion:

The EPP and the PNP reach high socio-demographic level populations. They should be integrated into a wider system of prevention and care, in order to reach the most vulnerable populations and to contribute to the improvement of the psychological and social environment of all the women during the perinatal period.

Key Words: Promotion of Perinatal Health, prevention, psychosocial environment

References:

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Engagement and Individualised Care: The Role of the General Practitioner Lactation Consultant in a Perinatal and Infant Mental Health Service

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Background

Depressive symptoms have been shown to negatively influence breastfeeding outcomes.[1] Antenatal anxiety and depression is related to early breastfeeding cessation, and these symptoms increase in severity after cessation.[2] Previous studies have described a team approach to management of breastfeeding difficulties.[3]

Method

A GP lactation consultant (GPLC) experienced in perinatal mental health was engaged to provide breastfeeding medicine consultations within a private multidisciplinary perinatal & infant mental health (PIMH) service. Patients were self-referred, or referred by external providers and other practitioners within the service. Patients were routinely asked about mental health symptoms, support and adjustment to parenthood, and the mother-baby interaction was observed.

Results

A number of patients who presented with breastfeeding problems had significant anxiety, depression and adjustment difficulties. Rapport was gained during management of breastfeeding issues and mental health issues explored. Options were then discussed and patients were able to engage with a PIMH clinical nurse, group program or PIMH psychiatrist. Patients being treated for anxiety were referred to the GPLC for exploration of breastfeeding concerns, with anxiety considered when individualising breastfeeding plans.

Discussion

Many mothers identify breastfeeding difficulties more readily than problems with anxiety, depression or adjustment to motherhood. Skilled breastfeeding assessment can also identify mental health difficulties and open up discussion about adjustment and available support. Patients being treated for anxiety or depression are able to access breastfeeding support, enabling continuation of the breastfeeding relationship.

Keywords

Breastfeeding, anxiety, lactation consultant

References

1. Dennis CL, McQueen K. The relationship between infant-feeding outcomes and postpartum depression: a qualitative systematic review. *Pediatrics.* Apr 2009;123(4):e736-751.
2. Ystrom E. Breastfeeding cessation and symptoms of anxiety and depression: a longitudinal cohort study. *BMC Pregnancy Childbirth.* 2012;12:36.
3. Bunik M, Dunn DM, Watkins L, Talmi A. Trifecta approach to breastfeeding: clinical care in the integrated mental health model. *J Hum Lact.* May 2014;30(2):143-147.

The International Marcé Society MBU Network: a proposal to develop a clinical and research network of mother and baby units

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Objectives and expected outcomes

Mother and Baby Units (MBUs) have developed from early reports of joint mother-baby admissions in the mid 20th century, to highly specialised services spanning countries and continents across the globe. They aim to offer significant advantages over traditional acute mental health care in that, alongside the treatment of significant maternal mental illness, they assist the mother in developing necessary skills in caring for her new baby and facilitate the developing mother-infant relationship, reducing longer-term disadvantage for children growing up. However, our evidence-base for the effectiveness of the MBU approach remains limited, as do national and international guidelines on models of service delivery.

The workshop will begin with a brief description of MBU provision in the facilitators' nations and introduce the Royal College of Psychiatrists' Accreditation and Peer Review system for UK MBUs.

Intended outcomes

1. Bringing together MBU practitioners to establish an international network of MBUs.
2. Agreeing systems for sharing information on service delivery and standard setting.
3. Exploring opportunities for research to inform better hospital-based care.

Key words

Maternal mental illness, mother and baby unit, inpatient care

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- Langan-Martin J, McLean G, Cantwell R, Smith D (2016) Admission to psychiatric hospital in the early and late post-partum periods: Scottish national linkage study. *BMJ Open*, 6:e008758. doi:10.1136/bmjopen-2015-008758.

Patients assessed as having perinatal anxiety or depression and whose general practitioner has provided a Mental Health Plan are eligible to receive 10 sessions with a psychologist per calendar year under the MBS. Access to a psychologist and out of pocket expenses are significant barriers to instigating treatment in a timely fashion. Gidget House, a facility of the Gidget Foundation, provides appointments to women with a referral. The psychologists provide their service for a Medicare-only fee, using the Medicare Better Access Model. More than 450 women and men have been seen in 2 years and demand is growing. Gidget House fills an unmet need and is a reproducible prototype for provision of outpatient perinatal mental health services. The service is provided on-site and through tele-medicine, utilising Skype, thereby making the service accessible both locally and nationally. Data will be presented from the program including demographics, EPDS progression scores and DASS21 and evidence of improvement in scores as a result of treatment. Patient response is measured through a follow-up questionnaire.

Characteristics of callers to PANDA Perinatal Anxiety & Depression Australia National Helpline and their health assessment, history and risk factors

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Objectives/Background:
Perinatal depression and anxiety are major public health issues.[1] Telephone-based support allows greater accessibility than face-to-face contact, and a more private and non-stigmatising approach, not affected by transportation or geography.[2] The PANDA National Helpline provides information and support to people affected by perinatal depression and anxiety in Australia. This study aimed to describe the characteristics of women (who comprise 97% of all callers) contacting the Helpline and to explore their health assessment, and risk factors.

Methods:
Analyses of routinely collected de-identified data for women making initial calls between July 2010 and October 2013.

Results:
5,818 women called the Helpline. The majority were 25-40 years old (79%) and married or partnered (94%); 41% had two or more children; and 23% were pregnant. Over half had no pre-existing diagnosis of a mental health problem. Women's conditions as categorised by PANDA counsellors were: postnatal depression/anxiety (36%), 'unknown' (34%), transition difficulties (16%) and antenatal depression/anxiety (10%). Forty percent were recorded as 'high needs callers' - experiencing significant bio-psychosocial symptoms of perinatal depression and anxiety, complex situations or inadequate care and support. Concerns included inadequate treatment for a mental health condition (31%), not feeling connected to their baby (31%), functioning at a low level mentally (25%), and general thoughts of suicide (18%). Contributing factors to their condition were: 'mental health history' (57); and 'physical' (55%), 'emotional' (54%), 'social' (50%), and 'baby related' (38%) factors.

Conclusion/Discussion:
A substantial proportion of women had complex perinatal mental health needs, many of whom had no prior diagnosis or adequate treatment. Effective strategies are needed for early detection and support of women in the perinatal period.

Key words: perinatal mental health; telephone support; helpline

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ABSTRACT

OBSTETRIC AND NEONATAL OUTCOMES OF WOMEN ADMITTED ANTENATALLY TO A MOTHER AND BABY UNIT DUE TO SIGNIFICANT MENTAL HEALTH ILLNESS

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Aims
To evaluate the obstetric, neonatal and psychiatric outcomes of women with severe mental health illness who were admitted antenatally and delivered whilst an inpatient at the Margaret Oates Mother and Baby Unit (MBU) in East London. This presentation will highlight the joint working between maternity and psychiatric services in supporting high risk pregnant women requiring inpatient psychiatric care.

Methods
Retrospective case-note review of all women admitted to the MBU whilst pregnant over a 6-year period (2010 – 2015).

Results
52 antenatal patients were admitted to the MBU over the study period. Majority were under 35 years of age (75%), primips (54%) and had a BMI ≤30 (59%). 60% of patients reported socio-economic difficulties and 17% divulged a history of domestic abuse. Women were admitted as planned admissions or where there was deterioration in their mental health in late pregnancy.

The commonest psychiatric diagnoses were schizophrenia (36%), bipolar disorder (34%) and depression (22%). 18% had a history of suicide attempts and 38% were current smokers and/or users of alcohol or illicit substances.

The livebirth rate was 98%. All babies were born at ≥36 weeks gestation. 90% of women who went into labour spontaneously had a vaginal delivery. Out of the 22 caesarean sections performed, 3 required general anaesthesia with the primary indication being maternal psychiatric illness.

The average birthweight of the babies was 3218g (2320g–4540g). 92% were born with good Apgars.

Discussion
Despite 58% of these high-risk patients presenting from other maternity or psychiatric units (96% in the third trimester), the outcome is favourable. This is likely due to the care provided by specialist psychiatric nurses, specialist

perinatal mental health midwife, perinatal psychiatrists and obstetricians. These women are screened for diabetes, pre-eclampsia and growth restriction[1].

The unit would generally aim for a vaginal delivery where clinically appropriate and this is evidenced by the successful high vaginal delivery rate in the study.

Conclusion

In the latest MBRRACE report[2] into maternal death, almost a quarter of women who died between 6 weeks and 1 year after pregnancy died from mental-health related causes, with 1 in 7 dying by committing suicide. All women deserve access to expert perinatal mental health care, which is best offered in a multi-disciplinary fashion, in order to ensure the best outcome for both mother and baby. Admission to a psychiatric mother and baby unit confers a good outcome for both mother and baby if admitted antenatally.

Key words: obstetrics, inpatient, psychiatric care

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MIRTAZAPINE IN SEVERE NAUSEA AND VOMITING OF PREGNANCY (NVP)

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Background:

Mirtazapine is a noradrenergic and specific serotonergic antidepressant (NaSSA). Although it is primarily used as an antidepressant, it has also been used effectively as an anti-emetic. Similar to ondansetron, an antiemetic agent, mirtazapine has an antagonistic effect on 5-HT3 receptors of serotonin.

Objective:

To review the literature regarding the use of mirtazapine to treat nausea and vomiting of pregnancy (NVP), as well as to describe five new cases.

Methods:

A search of the literature was performed and all cases where mirtazapine was used to treat NVP were retrieved and will be described. In addition, the outcomes of our 5 new cases will also be documented.

Results:

To date, there have been 18 cases previously reported in the literature documenting the use of mirtazapine to treat the symptoms of NVP. All of them reported effectiveness, in some cases almost immediately and others within a few days, several to the point of allowing a women to continue a pregnancy, that prior to taking mirtazapine she had considered termination because of the severity of the NVP.

In addition, the five new cases we reported, also documented effectiveness, in some cases quite dramatically.

Conclusions:

It would appear that mirtazapine maybe a useful pharmacologic treatment for severe NVP. However, it must be noted that this drug has been used off label and safety during pregnancy has not yet been well established.

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Factors affecting decision making about pregnancy among women with severe mental illness – an exploratory study from India

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BACKGROUND: Research shows some of the struggles women with severe mental illness face when navigating motherhood(1). While pre conception counselling is important(2), there is limited research on factors that influence their decisions during this period, especially in low literacy situations.

METHODS: Women attending a perinatal psychiatry clinic with a history of pre-existing mental illness, either pregnant or planning pregnancy, were interviewed using a topic guide exploring the following areas: contraception and pregnancy planning; ideas about medication use in pregnancy; illness course and pregnancy; preparedness for motherhood, attitude to psychiatrist's advice regarding medication and pregnancy, family and spouse attitudes about having a child. The interview was conducted after they had consulted with their treating psychiatrist. Transcripts were reviewed by three raters and main themes were determined by consensus.

RESULTS: 20 women were interviewed. Majority were from a low socio economic background, with basic literacy. Preparation for motherhood was not considered by any of the women. Most women were worried about congenital defects resulting from medications, but the effect of the illness on baby was not considered. Despite being advised about risks, many believed that the illness will not recur during pregnancy or postpartum once the "course" of medication was completed or even if medication was stopped. Family members often heavily influenced decision making. Both overt and covert pressure was exerted on the woman to conceive; in a few cases with the hope of getting a male child. Almost all women were sexually active and not using contraception. A few women who had a previous postpartum episode had better knowledge but even they did not have a planned pregnancy.

CONCLUSIONS: In this group of women, it appeared that pre-existing notions about mental illness and medication, cultural beliefs and the influence of family members played a major role in decision making. In some cases decisions were already made independent of knowledge gained from specialists.

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The course of depressive symptoms in Swedish fathers during the first postnatal years

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ABSTRACT
Objective/Background: Persistent depressive symptoms in new fathers has been linked with adverse effects on the child (1). The aim of the present study was to investigate the extent and course of depressive symptoms in Swedish fathers over the first two postnatal years and to identify factors associated with persistent symptoms.
Methods: A population-based sample of 885 fathers took part in a longitudinal study investigating postnatal depressive symptoms in Swedish mothers and fathers (2). Depressive symptoms in fathers was assessed with the Edinburgh Postnatal Depression Scale (EPDS) at 3, 6 and 25 months postnatally. Regression models will be used to explore associations between more persistent symptoms and socio-demographic factors, including relationship and support variables.
Results: The point prevalence of depressive symptoms in fathers (EPDS score of 12 or more) was within the same range at the three time points 3, 6 and 25 months: 6.3%, 5.9% and 5.0% respectively. Of the fathers who scored high at 3 months, just under half still reported depressive symptoms at 6 months postnatally. Among those with depressive symptoms at 3 and/or 6 months, around one third reported symptoms when the child was 2 years old. Preliminary results from the analyses concerning factors associated with persistent symptoms of depression in fathers will be presented..
Conclusion/Discussion: The results, as well as possible implications concerning identification and support interventions to distressed fathers will be discussed.

Keywords: fathers, postnatal depression, course

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Distinct or the Same? Subjective Fatigue and Depression in Women Admitted with Unsettled Infants to a Residential Early Parenting Service

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Background Parents seeking support from residential early parenting services (REPS) report elevated depression and subjective fatigue; in the postpartum period, these often co-exist. Using data from women admitted with their unsettled infants to a REPS, we report on (a) the association between subjective fatigue and depression, and (b) whether subjective fatigue and depression are associated with similar or distinct risk and protective factors.

Methods Women completed a survey on the day of admission. Standardised instruments were used to assess depression, subjective fatigue and the quality of intimate partner relationship. Study-specific questions were used to assess infant behaviour and perceived adequacy of practical and emotional support. Structural equation modelling was used to investigate associations (a) and (b).

Results Data were available for 167 women. Higher fatigue scores were significantly but not perfectly associated with higher depression scores (Spearman's rho = 0.376; $p<0.001$). It is not possible to assign the direction of causality.

Controlling for relevant factors, higher depression scores were significantly associated with having a history of mental health problems ($p=0.019$) and unmet needs for emotional support ($p=0.002$). The interaction was significant ($p=0.026$): the association between lack of emotional support and depression symptoms was significantly stronger for women with no history, compared to those with a history, of mental health problems.

Higher fatigue scores were significantly associated with having a history of mental health problems ($p=0.009$) and unsettled infant behaviour ($p=0.005$).

Conclusion Fatigue was significantly associated with depression in women attending a REPS with unsettled infants. Depression and fatigue scores were both associated with having a history of mental health problems. Sufficient emotional support was protective against depression but not fatigue. Women with unsettled infants should be encouraged to maximise emotional support; however, for women with a history of mental health problems, this is not sufficient to protect them against depression and additional intervention may be required.

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Key words: postnatal depression, fatigue, residential early parenting services, support

The Importance of Intrauterine Environment in Shaping the Neonatal Genome

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Background: The Peri/postnatal Epigenetic Twins Study (PETS) is a unique cohort of 250 mothers and their twins. Women were recruited from three Melbourne hospitals midway through their second trimester, which enabled measurement of maternal and fetal factors at multiple time points. We collected multiple biospecimens at birth (cord blood, cords, placenta and buccal tissue) and repeat samples of blood and buccal swabs when infants were 18 months and six years of age. We aimed to study the plasticity of epigenetic marks and the genes they control during the intrauterine period and in early childhood.

Methods: We performed both gene-specific and genome-wide analysis of the epigenetic mark of DNA methylation in multiple cell types using Sequenom MassArray EpiTyper and Illumina Infinium arrays. Data were regressed against multiple shared maternal factors (e.g. IVF, folate intake, gestational diabetes) and placenta weights, specific to each twin.

Results: Twin pairs exhibited a wide range of within-pair epigenetic discordance at birth, which overlapped with that observed between unrelated individuals. Using gene-specific analysis we found that that certain gene ontologies are consistently variably methylated within pairs in all tissues, and that genetic and intrauterine environmental influence on DNA methylation varied throughout the genome. Using regression analysis, we identified genes whose expression and methylation levels correlated with birth weight in MZ pairs. These were enriched in functions related to nutrient metabolism and response to environmental agents. We also found an associations between placental weight and gestational diabetes and DNA methylation at birth and tissue-specific association with other factors.

Conclusions/Discussion: Our data support the idea that genetic, shared (maternal) and nonshared (placental) environmental factors impact on the developing epigenome. They also suggest that multiple early environments may be epigenetically reprogramming genes involved in metabolism, which may provide a mechanism for the early origins of cardiometabolic disease.

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Mother and Father Psychobiology in Relation to Parenting and Infant Stress

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Objectives/Background: Depression during the first year postpartum is common for both mothers (16%) and fathers (10.4%). Postpartum depression (PPD) is a major public health concern for several reasons, including the risk for infant emotional health outcomes and future child mental health problems. Exclusion of fathers from PPD research neglects a serious public health issue. An in-depth parallel examination of both father's and mother's biological (hormone), social, and psychological experiences in relation to parenting and infant stress has not been conducted previously. The study's aim is to examine the impact of maternal/paternal gonadal (testosterone) and stress (cortisol) hormones, shared/unshared socio-environmental factors, and PPD when predicting parenting and infant stress.

Methods: Adult, partnered mothers and fathers were recruited from an urban, obstetrics department. Assessments were conducted during the first 6 months postpartum. Couples who consented to participate completed diagnostic interviews, online socio-environmental measures, assessment of parenting, and provided salivary samples.

Results: Preliminary data on the relation between the mother and father hormone changes and parental mood symptoms will be presented. In addition, the presentation outlines the association of parental mood and parenting with infant stress.

Conclusion: This multi-method approach to differentiating gender-specific risk for PPD symptoms and the association with infant stress will inform research and clinical practice of the importance of: 1) including fathers in perinatal research/practice and 2) inductive exploration of paternal depression from the biological and socio-environmental experience of fathers rather than solely deductive empirical investigation from the sociobiological experience of mothers.

Key Words: postpartum depression, fathers, infant stress

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Fatigue, Psychomotor Vigilance and Psychological Functioning in Women Admitted to a Residential Early Parenting Service with Unsettled Infants

Paper 4

Abstract

Title: Changes in Psychomotor Vigilance, Impulsivity, Distress and Sleep-Related Functioning in Mothers Attending a Five-Day Residential Early Parenting Service for Unsettled Infant Behaviours.

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Objectives/Background: The cumulative effect of disrupted sleep is thought to influence new mothers' psychomotor vigilance negatively across the early postpartum period.[1,2] Sleep deprivation in non-postpartum settings is also associated with higher impulsivity, indicated by failures to inhibit automatic responses to emotional stimuli.[3] It is unknown to what extent interventions like Residential Early Parenting Services (REPS) for infant settling may improve mothers' psychomotor vigilance, impulsivity and subjective functioning.

Methods: Fifty-five mothers (age M±SD=33.83±3.78, infant age=8.08±4.69 months, 45% infants female) completed objective and subjective measures on Day 1 and 5 of a five-day REPS. Objective measures were the ten-minute Psychomotor Vigilance Task (PVT) and six-minute Emotional-Go/No-Go (EGNG) task.[3] Subjective sleepiness, fatigue, insomnia and distress were measured using the Karolinska Sleepiness Scale (KSS), Epworth Sleepiness Scale (ESS), Fatigue Severity Scale (FSS), Insomnia Severity Index (ISI) and Depression Anxiety Stress Scale (DASS-21).

Results: From Day 1 to Day 5, there was a significant decrease in PVT fastest 10% of reaction times (RT) (p<.01, d=.30) but there were no significant differences in mean RT (p=.06) or lapse (RT>500ms) frequency (p=.13). For both Day 1 and 5, the number of impulsive EGNG responses was significantly higher for emotional than neutral words (both p<.001, d=.86 & .65). However, there were no significant changes in impulsive response frequency or RTs to emotional or neutral words from Day 1 to 5. Sleepiness, fatigue, insomnia and distress assessed using the KSS, ESS, FSS, ISS and DASS-21 reduced significantly from Day 1 to 5 (all p<.001, d range = .70 to 1.25).

Conclusion/Discussion: Following a five-day REPS mothers experienced significant reductions in self-reported sleepiness, fatigue, insomnia and distress but improvement in only one aspect of objective functioning (fastest 10% PVT RTs). These preliminary results suggests that further understanding of the relationship between subjective and objective postpartum sleep-related functioning during interventions such as REPS is required.

Key words:

Postpartum, vigilance, impulsivity

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The Experience of Pregnancy and Early Motherhood in Mothers of Advanced Maternal Age

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Background: There is a considerable trend towards delayed childbearing in Australia and other Western nations[1]. Advanced maternal age is associated with several adverse biological outcomes[2]. However, older motherhood has also been associated with psychosocial factors (e.g. socioeconomic status, social support) that may be of benefit in childrearing and these have not yet been fully explored. The purpose of this study was to examine the factors influencing timing of first childbearing in women aged 35 and over (advanced maternal age) and their experience of early motherhood.
Methods: Thirty-eight women who were pregnant with their first child or had had their first baby in the last eighteen months, and were 35 or older during pregnancy completed an online structured interview to examine the factors contributing to the timing of their pregnancy, their sense of readiness and preparedness for pregnancy, their experience of pregnancy and motherhood, and the advantages and disadvantages they perceived to be associated with motherhood at an older age.
Results: Relationships, career, travel, financial and emotional stability, and fertility were the main factors influencing the timing of pregnancy in the sample. Most women in the sample reported readiness for pregnancy, and most reported worrying about the biological and psychosocial risks associated with their pregnancy.
Conclusion: Despite concerns about the physical disadvantages associated with advanced maternal age, the psychosocial profile of the women of advanced maternal age surveyed may contribute to an advantageous environment in which to rear children. The results reported have implications for the provision of medical and psychological care to women in this population.

Key words: advanced maternal age, qualitative, behaviour

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Do Early Life Exposures Influence the Impact of Prenatal Adversity on Mental Health Trajectories in Children from 2-14 years?

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Background: Both the prenatal and early life environments are now recognised as playing a crucial part in the development of child and adolescent mental health problems[1,2]. This study sought to examine whether a child's environment at three years of age, characterised by family socioeconomic status, family functioning, and psychological well-being, interacted with previously identified adverse exposures in utero (maternal smoking, maternal education, maternal exposure to stressful life events, gestational hypertension, and low family income) to influence mental health outcomes in children and adolescents, as measured by the Child Behaviour Checklist (CBCL) from five to 14 years of age.

Methods: Using prospectively collected longitudinal cohort data from the Western Australian Pregnancy Cohort (Raine) Study, we examined the extent to which early life environment influenced the relationship between each of the prenatal exposures and mental health outcomes, and changes in mental health from five to 14 years of age.

Results: Having low or average social advantage was associated with increased CBCL scores, as was having low levels of parent-reported family functioning. Social advantage was found to interact with maternal smoking to predict CBCL scores across all domains, and with family income and gestational hypertension to predict CBCL externalising scores.

Discussion: In the Raine Study sample, children born to mothers who smoked during pregnancy, had gestational hypertension, or family income below the poverty line prenatally are at substantially greater risk for mental health problems over childhood if their families have poor levels of social advantage in early life than if they have average or good levels of social advantage.

Key words: behaviour, child and adolescent, Raine Study, CBCL

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The Psychosocial Wellbeing of Parents with Infants in the Special Care Nursery

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For parents, the birth of an infant is an important event in their lives. When a newborn baby requires specialised medical care, the expected patterns and experiences of life for baby and parents are disrupted. Complications can arise, psychologically, socially, practically and financially. Social Workers have a role in supporting parents in order to minimise the disruption to bonding and attachment, and to promote the short term and longer term wellbeing of both infants and parents. There is limited research in the field of Social Work that explores the experiences that impact on parents' psychosocial wellbeing during an infant's admission into a Special Care Nursery (SCN). This qualitative research aims to understand the experiences of parents with an infant admitted to the SCN, in order to contribute to developing the role of the social worker and other health professionals in facilitating the important parent-infant bonding and attachment, and promoting the wellbeing of parents and infants.

The student researcher conducted ten in-depth semi-structured interviews with parents/caregivers exploring their experiences of having an infant admitted to the SCN. Participants completed an associated demographic survey. The interviews focussed on what parents/caregivers found to be helpful support provided by the SCN team and what challenges the SCN presented when building a relationship with their infant. Interviews were digitally audio recorded, transcribed verbatim and analysed using thematic analysis.

The findings of this research have implications for service design and delivery.

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The Impact of Parental Age at Birth on Self-Reported Behaviour Problems in Adolescents

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Background: Previous studies have identified parental age as an important predictive factor for child and adolescent behaviour outcomes[1-3]. This study looked to examine whether maternal and paternal age influenced adolescent-reported behaviour outcomes in a prospectively collected cohort population-based cohort.
Methods: The Western Australian Pregnancy (Raine) Cohort is a study of 2900 pregnancies. The Youth Self Report for Ages 11-18 was used to measure self-reported total, internalising (e.g. anxious/withdrawn) and externalising (e.g. delinquent/aggressive) behaviours in adolescents at the 14- and 17-year cohort follow ups. Concordance between adolescent- and parent-report data was lowest for internalising behaviours.
Results: There was a significant linear relationship between maternal age and total and externalising behaviour morbidity, but not paternal age. Older maternal age was associated with decreased risk for problem behaviours in adolescents. However, after accounting for other socioeconomic and psychosocial variables, no significant associations between either maternal or paternal age were evident.
Conclusions: This study found no evidence that paternal age impacted upon adolescent-reported behaviour problems. After controlling for a number of psychosocial variables associated with both maternal age at childbirth and child behaviour, no associations between maternal age and adolescent behaviour outcomes were evident.

Key words: behaviour, maternal age, CBCL, Raine Study

References:

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Symposium: 'It takes a village to raise a child' - but what to do when there is no village?

Co-ordinating care for vulnerable families across time, disciplines and sectors in line with the Western Australian Perinatal and Infant Mental Health Model of Care – A private practice case study

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Keywords: Model of Care; Service design, Private practice

Objectives/Background: Perinatal mothers, especially those with sick babies, can be considered 'hard to reach'[1] regarding mental health care. Principles of the Model[2] include: consideration of the whole family, early intervention, across-sector collaboration, clear referral pathways, and good communication between clinicians and agencies.

A de-identified case-study illustrates the relevance and applicability of the Model's[2] recommendations for service design, working across sectors, and supporting evidence-based, integrated and holistic care to parents and infants.

Method: 9-week-old breastfed twins were readmitted with failure to thrive, and referred to private PIMH psychiatrist, for review in the NICU. Mother-infant interaction and children's social development were found to be good. Mother was anxious, without diagnosable mental disorder. The needs of all family members, including father, were considered and supported, and different services accessed as required. Some of the issues encountered around working across disciplines, services and sectors are discussed.

Results: Over time, many different disciplines and services were involved in the family's care. Differing treatment paradigms brought some confusion into the situation, worsening the mother's anxiety. Approaching the family from the beginning with a whole person/whole family perspective proved helpful in maintaining engagement. Good working relationships between disciplines were supported by a service design that allowed flexible transition between the elements of care, and timely communication between clinicians.

Conclusion: The Model's recommendations can be implemented across private and public sectors, resulting in diminution of individual symptomatology and maintenance of important relationships within the family.

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Parent-Child Interaction Therapy for young Toddlers (PCIT-T): An attachment-based early intervention for disruptive behaviour disorders

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1. Objectives/Background

Disruptive behaviours in the toddler years can represent the beginning of a trajectory towards negative psychological outcomes across the lifespan. Parent-Child Interaction Therapy (PCIT) has demonstrated efficacy in the treatment of behavioural disorders in middle childhood [1] but converging evidence points to the importance of earlier intervention, when the child's attachment relationship with the caregiver is being established and before problems have become entrenched. To this end, we have developed a treatment program for infants aged 15-24 months displaying disruptive behaviour problems called 'PCIT-for young Toddlers' (PCIT-T).

2. Methods

This study builds on our previous pilot work [2] to evaluate the impact of PCIT-T on (i) parenting sensitivity, behaviours and psychological functioning and (ii) child disruptive behaviours and attachment patterns, using a waitlist-controlled design with a longitudinal follow-up to examine the stability of changes over time. Outcomes variables are assessed using parent-report, interview and observational measures. To date, 40 families have been recruited into the study.

3. Results

Analysis of preliminary questionnaire data shows the intervention to be associated with significant changes in disruptive child behaviours as measured by the Eyberg Child Behavior Inventory, aggressive behaviour as measured by the Child Behavior Checklist and maternal depression as measured by the Edinburgh Postnatal Depression Scale.

4. Conclusion/Discussion

Preliminary results of this study indicate the efficacy of PCIT-T for the treatment of child disruptive behaviours and parental depressed mood. Future work will examine the efficacy of the program with regards to improving maternal sensitivity, child attachment and quality of the parent-child relationship.

5. 3 Key words

Toddlers; disruptive behaviour disorders; parenting

6. References

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Objectives / Background

Whilst there has been much work in recent years regarding the experiences of children who live with a parent with mental illness (Maybery et al. 2009; Grove, Reupert & Maybery, 2014), the knowledge base surrounding the life-long experiences for this group of people remains limited. This paper will present one of the main findings from a study which sought narratives of adults who had lived with childhood parental mental illness. Narratives of their subsequent parenting role was also a major focus for the study.

Methods

A narrative approach underpinned the study. Ten women and 3 men, over 18 years old participated. Data analysis included generating themes and sub themes. Additionally, all transcripts were reviewed to establish childhood, teenager, adulthood and parenting perspectives.

Results

The findings clearly demonstrated that children experience fear and mistrust of others when living with parental mental illness. Stigma of mental illness is a contributing factor to children's experiences of fear and mistrust, resulting in a culture of secrecy. Participants felt they lost sight of themselves both during their childhood, and later in adulthood. Similarly, participants felt they had lost sight of their parent. Despite these experiences, participants conceptualised their own parenting roles as a precursor to their individual sense of recovery. They felt they were better able to find themselves through meaningful relationships with their children. Yet, whilst participants deeply desired their own families, they experienced ongoing parenting worries.

Discussion

Childhood anxiety and distress associated with parental mental illness can continue into adulthood and an individual's subsequent parenting role. Facilitating a journey of recovery for adults who have experienced childhood parental mental illness can enhance their sense of self, resulting in increased parenting confidence. Familial history taking is essential to identify new parents who may be at increased risk of longer standing parenting anxiety.

Key words

Parental mental illness, parenting

References

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Mothers' attachment state-of-mind and outcomes of a residential parent-infant intervention for unsettled infant behavior

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Mothers' attachment state-of-mind and outcomes of a residential parent-infant intervention for unsettled infant behavior

1. Objectives/Background

In Australia, families who are struggling with persistent unsettled infant behavior are often referred to residential early parenting services (REPS). While these programs are known to be effective [1], the role of maternal adult attachment insecurity in treatment outcomes is unknown. This study examined associations among attachment state-of-mind, infant behavior and outcomes in mothers attending a REPS for treatment of unsettled infant behavior.

2. Methods

Participants were primiparous women (infants aged 0-12 months) admitted to a REPS in Sydney. Nurses recorded infant behaviors on 24-hour charts and participants completed self-report questionnaires, a structured interview for diagnosis of DSM-IV mental disorders and the Adult Attachment Interview [2].

3. Results

Of the 50 participants, 31 (62%) were classified as 'Secure' and 19 (38%) were classified as 'Insecure' on the AAI. Results showed the intervention to be associated with improvements in total infant sleep and unsettled time, irrespective of maternal adult attachment status, and independent of maternal depression and anxiety. Interestingly, infants of 'insecure' mothers did, however, benefit more from the intervention in terms of reduction in total number of night-time wakings and 'secure' mothers benefitted more in terms of parenting confidence.

4. Conclusion/Discussion

Results highlight the role of maternal attachment state-of-mind in the treatment of early parenting problems. Interpretations of study findings, implications for clinical practice and directions for future research will be discussed.

5. 3 key words

Infant sleep; parenting interventions; adult attachment

6. References

1. Phillips, J., Sharpe, L., Nemeth, D., *Maternal psychopathology and outcomes of a residential mother-infant intervention for unsettled infant behaviour.* Australian and New Zealand Journal of Psychiatry, 2010. **44**: p. 280-289.
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Something to Worry About! Lived Experiences of Perinatal Anxiety: Emerging Themes and Preliminary Findings.

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Objectives/Background: Perinatal anxiety is an overlooked phenomenon in qualitative and quantitative research despite growing recognition of its prevalence and detrimental impacts (Matthey, Barnett, Howie, & Kavanagh, 2003). This knowledge gap is reflected in the paradigms, practice frameworks, treatment models and screening processes informing evidence based practice (Milgrom & Gemmill, 2013). This presentation will address this knowledge gap by exploring emerging themes from the PhD research project *Motherhood and Anxiety: Experiences and Perspectives*.

Methods: A qualitative phenomenological study using in-depth interviews with 'highly anxious' pregnant and parenting women and perinatal care practitioners. The study is informed by feminist research methods, social work frameworks and critical mental health theories. Thematic analysis using NVivo software has been used to identify, explore and make sense of themes within the data.

Results: Preliminary analysis identifies themes including: Psychological Literacy, Diagnosis, Stigma, Fear of Madness, Support and Psycho-Social Risk.

Conclusion/Discussion: This presentation contributes to evidence based knowledge about perinatal anxiety by presenting key themes emerging from the data. The emerging findings explore new territory for perinatal mental health care and provide valuable insight into the subjective experiences of anxious mothers and how this rich understanding can inform future practice to achieve lasting change.

Key Words: Perinatal; Anxiety; Qualitative

References:

Matthey, S., Barnett, B., Howie, P., & Kavanagh, D. J. (2003). Diagnosing postpartum depression in mothers and fathers: whatever happened to anxiety? Journal of Affective Disorders, 74, 139-147.

Milgrom, J., & Gemmill, A. W. (2013). Screening for perinatal depression. Best Practice & Research Clinical Obstetrics and Gynaecology, 1(11).

Postnatal demoralisation: growing evidence for its relevance, detection, and treatment

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Objectives/Background: Demoralisation is a psychological state occurring in stressful life situations where a person feels unable to respond effectively to their circumstances, characterised by feelings of distress, subjective incompetence, helplessness and hopelessness. Demoralisation is particularly relevant to women mothering unsettled infants, who can feel incompetent and helpless (Bobevski et al., 2014; 2015). Early parenting programs seek to improve parental confidence and decrease helplessness through psychoeducation and skill building, and might thereby reduce demoralisation. This study examined whether demoralisation: (1) is a valid, detectable, and relevant construct postnatally; (2) improves following an intervention program.
Methods: Women admitted to an Australian residential early parenting program were recruited consecutively. Demoralisation (Demoralisation Scale), depression and anxiety (EPDS; DASS-21), and experiences of motherhood (BAM-13) were assessed on admission and discharge.
Results: Participant's (N=186) demoralisation level was high (M=30.9; SD=15.5) and associated with functional impairment and negative experiences of motherhood, independently of depression and anxiety symptoms. Women perceived the Demoralisation Scale as relevant to their postnatal experiences. Demoralisation decreased significantly after the intervention (M=18.4; SD=12.4). More participants improved on demoralisation (57.5%) than on depression (34.8%) and anxiety (9.8%).
Conclusion/Discussion: Postnatal demoralisation is a valid, detectable, and relevant construct, responsive to treatment. Its utility is in: (1) providing a framework for understanding and measuring women's experiences in a more meaningful and less stigmatising way, by bringing the focus on the circumstances of looking after an unsettled infant; (2) guiding interventions towards skill building to increase women's sense of competence and decrease helplessness and hopelessness.

Keywords: demoralisation; postnatal mental health; early parenting

References

Bobevski, I. et al. (2014). Postnatal demoralisation among women admitted to a hospital mother-baby unit: validation of a psychometric measure. *Archives of Women's Mental Health, 18*(6), 817-827.
Bobevski, I. et al. (2015). Early postnatal demoralisation among primiparous women in the community: measurement, prevalence and associated factors. *BMC Pregnancy and Childbirth, 15*(1), 259.

Symposium

"Training and Implementing the Watch, Wait and Wonder Intervention in Perinatal Mental Health Settings"

Overall Summary:

Supporting the infant-parent relationship is an essential component of care for parents with a mental illness with research showing the adverse impact of prenatal and postnatal illness on the development of children. There are challenges with implementing interventions with parents whose illness compromises their capacity to care and be responsive to a baby's needs.

In Australia and New Zealand some services are building experience in the use of Watch, Wait and Wonder [WWW] with parents who have a mental illness. Using clinical material, preliminary findings with utilising the intervention in an outpatient perinatal MHS and a specialist Mother Baby Unit will be discussed.

Data using the two Tools from Axis II of DC: 0-3R, the RPCL and PIR-GAS ratings will be presented with relevance to formulation and a clinical window to change in the relationship.

Considerations for use of the intervention include: the intervention's appropriateness, where to see the dyad, when to incorporate this intervention within other aspects of care, what can a dyad manage across the two phases of the intervention and the therapist's capacity to hold the space of the intervention over 16-24 weeks.

WWW is an infant/child led dyadic intervention with an evidence base supporting its capacity to improve infant's self-regulation, cognitive development and attachment security, and parent's levels of depression and sense of competency in their parenting. WWW differently places the baby in an active central role in the therapy with parents supported in observing to become more knowing of them. In the first part of the session the parent is given a number of instructions around following their infant's lead and not taking over the infant's activity. Then a discussion enables the parent to begin to reflect on their observations, experiences and anxieties felt when following their child's lead.

First Presentation:

Title:
Implementing the Watch, Wait and Wonder Intervention in a
Community Based Perinatal and Infant MHS

Presenters:
Lucinda Smith – Clinical Director Raphael Services, St John of God Berwick, Victoria
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Adaobi Udechuku - Clinical Director Raphael Services, St John of God Berwick, Victoria
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Biography: Doctors Lucinda Smith and Adaobi Udechuku are perinatal psychiatrists working at the Raphael Centre, Berwick since 2006 and 2007 respectively, and have shared the Clinical Director role since 2012. The Raphael Centre is a community based secondary level perinatal and infant mental health service. They provide direct individual and parent-infant dyadic work as well as supervision, training and clinical governance.

Background:

Parental mental health can adversely impact upon infant development but treating parents does not necessarily translate to improved outcomes for infants[1] or the parent infant relationship. WWW[2] has been incorporated into the service model at The Raphael Centre Berwick.
This presentation will use clinical material and outline

- the author's experiences of undertaking WWW Certification
- implementing the intervention in a busy community based perinatal and infant MHS
- logistical and service level issues - supervision, video recording and service and individual capacity
- holding, containing and maintaining the frame
- what did and what didn't work

Discussion:
Improvements in the parent-infant relationship were achieved. Individual and service level considerations including resourcing should be taken into account before embarking on this worthwhile intervention. Avenues to increase clinicians' exposure to training and use of WWW should be explored.

3 Key Words: Watch Wait Wonder, mother-infant interaction

References:
[1] Forman, D. R. et al. Effective treatment for postpartum depression is not sufficient to improve the developing mother-child relationship. Dev. Psychopathol. 19, 585-602
[2] Cohen N., Lojkasek M., Muir E., et. al. [1999] *Watch, Wait, and Wonder: Testing the effectiveness of a new approach to mother-infant psychotherapy* Infant Mental Health Journal; 20, 429-451

Second Presentation:

Title: **Implementing the Watch, Wait and Wonder Intervention in a Mothers and Babies Service**

Presenters:
Liz MacDonald – Perinatal Psychiatrist, Christchurch Mother and Baby Service
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Fiona Will – Senior Clinical Psychologist, Christchurch Mother and Baby Service
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Biography: Dr Liz MacDonald is a perinatal psychiatrist interested in supporting the infant mental health needs of the babies of mothers with moderate to severe mental illness. Fiona Will is a senior Clinical Psychologist and is the Attachment Specialist at the Mother and Baby Service.

Background: The Service is a regional (South Island wide) perinatal service providing out-patient and in-patient care for mothers with mental illness and their infants up to a year after childbirth. For some years the service had supervision around complex cases from E Muir encouraging interest in WWW. The presenters are training in the intervention.

Methods: Implementing WWW with mothers with moderate to severe mental illness has required considerable thought and discussion.
The presenters have additionally found the WWW stance to be a philosophically unifying approach to aid clinicians, in the in-patient setting, with the careful balance between guidance and "watching, waiting and wondering" with the dyad.

Results: Clinical material demonstrating positive outcomes with using WWW and preliminary findings using the WWW stance in an inpatient unit will be presented.

Discussion: Decisions to make the intervention "user friendly" for mother, baby and clinician are reviewed. It is important to understand the baby's experience and the mother's capacity for becoming preoccupied.

3 Key Words: Watch Wait and Wonder, maternal mental illness, in-patient care

References:
Cohen N., Lojkasek M., Muir E. et. al. [2002] *Six-month follow-up of two mother-infant psychotherapies: Convergence of therapeutic outcomes* Infant Mental Health Journal; 23, 4, 361-380
Lojkasek M., Cohen N. and Muir E. [1994] *Where is the infant in infant intervention? A review of the literature on changing troubled mother-infant relationships* Psychotherapy: Theory, Research and Practice; 31, 208-220

Third presentation:

Title:
Training in Watch, Wait, and Wonder for Clinicians in Perinatal Settings

Presenter:
Denise Guy – Coordinator Watch, Wait and Wonder Training in Australasia, Clinical Senior Lecturer Department of Psychological Medicine, Otago University, Christchurch
d.guy125@gmail.com

Biography:
Dr Denise Guy is a Child Psychiatrist involved with WWW from 1986. The Australasian Training programme for WWW intervention began in 2009. She is President of the New Zealand Affiliate of WAIMH and Trustee of Incredible Families.

Background:
Parenting capacities are affected by mental illness and the infant outcome evidence highlights the need for interventions that improve the infant-parent relationship. Watch, Wait and Wonder is an appropriate intervention to consider. Training improves observational skills and developing a therapeutic stance that is more reflective and less reactive.

Methods:
The Australasian training in WWW will be reviewed with reference to supervision supporting this work in a perinatal mental health setting. This therapy uniquely prioritises the baby's capacity to contribute to relationship change, enables a parent to directly work with their baby and prevents therapist's from intervening in ways that come between a parent and their baby. Reviewing film in supervision is essential.

Results:
The work is complicated and the relationships between the dyads assessed for consideration of WWW concerning. Data addressing this clinically with reference to training will be presented.

Discussion:
Learnings from families, observing film and supervision has influenced the training of clinicians from perinatal settings so that they in turn can engage with families to achieve positive outcomes.

Key Words: Training, Watch Wait Wonder, Supervision

References:
Muir E., Lojkasek M. and Cohen N. [1999] *Watch, Wait, and Wonder: A Manual Describing a Dyadic Infant-led Approach to Problems in Infancy and Early Childhood* The Hincks-Dellcrest Centre and The Hincks-Dellcrest Institute
Psychotherapy: Theory, Research and Practice; 31, 208-220
Muir E. [1992] *Watching, Waiting, and Wondering: Applying psychoanalytic principals to mother-infant intervention* Infant Mental Health Journal; 13, 319-328

Objectives/Background

The Flinders Medical Centre (FMC) Early Links Program aims to enhance the safety, health and wellbeing of pregnant women and their infants by providing a comprehensive early antenatal risk assessment, case planning and referral service. It identifies expectant mothers whose infant may be "at risk" of harm, and aims to ameliorate that risk by linking them with appropriate hospital and community based services.

While the Early Links Program has now been running for around 10 years, almost nothing is known about its effectiveness. In a joint study by FMC and the Child and Family Health Service (CaFHS) we will examine the service pathway from FMC into this core community-based service for evidence of engagement with those identified as "at risk" by Early Links.

Method

Electronic FMC antenatal and perinatal data will be linked to data extracted from a CaFHS case audit for "at risk" infants born at FMC over a two month period (n~100). Uptake of referrals made through the Early Links program, women's subsequent engagement with CaFHS services, and the health and safety outcomes of infants, will be examined through to the infant's 6 month health check.

Results/Discussion

Results will explore: maternal risk profiles; referrals made in the antenatal, perinatal and postnatal periods; initial and sustained service engagement with CaFHS services; and infant health and safety data.

Key words

antenatal, psychosocial screening, early intervention and prevention

References

Psaila K, Fowler C, Kruske S, Schmied V. (2014). A qualitative study of innovations implemented to improve transition of care from maternity to child and family health (CFH) services in Australia. *Women and Birth*, 27:e51-e60.

Reilly N, Harris S, Loxton D, Chojenta C, Forder P, Austin M-P. (2014). The impact of routine assessment of past or current mental health on help-seeking in the perinatal period. *Women and Birth*, e20-e27.

COMMUNITY HEALTH WORKERS IN INTEGRATED MENTAL HEALTH CARE FOR PERINATAL DEPRESSION IN SURABAYA, INDONESIA

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The prevalence of perinatal mental disorders In Indonesia is quite high (>20%)[1] yet mental health services for these disorders are not available. Unique practices and policies enable lay people (community health workers/CHWs) who currently provide antenatal and postnatal services in the community to play a role in the detection of mental health problems among pregnant women and post-partum mothers and referring them for mental health assessment and treatment[2,3,4]. The aim of this study is to investigate the possible roles of lay people in the community (the CHWs) to detect and refer women experiencing mental health. This will be achieved by examining the CHWs' perception on the acceptability and the feasibility in implementing it. Twelve CHWs from six integrated service posts (ISP) in a PHC clinic in Surabaya participated in semi-structured interview. The team leader and one member CHWs were recruited from each ISP. Framework analysis was employed to manage and understand the data. Results indicated that most of participants agree to carry on the role, but some of them raised conditional circumstances. Supporting conditions and barriers are also discussed that contribute to a recommendation for the implementation. This study provides some preliminary evidence on the acceptability and feasibility of task shifting in integrated mental health in the particular culture and health system in Indonesia that is beneficial for the development of maternal mental health services in which community is involved.

Keywords: perinatal depression, community health workers, acceptability and feasibility

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2. Kementrian Kesehatan RI, Pedoman Pelayanan Antenatal Terpadu, D.J.B.K. Masyarakat, Editor. 2010, Kementerian Kesehatan RI: Jakarta.
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4. Boothby, N., Veatch, M., & Pentes, M. (2011). Evaluating treatment of Axis I mental health disorders in Aceh, Indonesia. The Psychiatrist, 35(7), 248-255.

Background:

Desire of the female to bear children can surpass the most extreme of situations. Over and above that, majority of mentally ill women are mothers with increasing number of them seeking help. Little is known about their own experiences in this regard and the extent to which their needs are met.

Objectives:

To assess the needs and experiences of pregnancy & motherhood in women with severe mental illness

Method:

The study used qualitative design with social constructivist paradigm. A purposive sample of 30 mothers with severe mental illness was obtained. Data was collected through one-to-one in-depth semi-structured interviews. After verbatim transcription, inductive thematic analysis was used to explore transcripts.

Results:

The varied experiences were arranged along the pre-pregnancy and post-pregnancy timelines. Overall: feelings for the child (ambivalence, possessiveness, guilt), impact of illness (stigma, symptoms, medication), unmet needs (for shared responsibility, emotional support, support groups) & caregiver reaction (blame, discrimination, custody threats) appeared as the main categories (and themes). Most women considered motherhood 'central' to their lives & almost all of them experienced the burden of "dual role". A widespread idea that mentally ill women cannot be "good mothers" was common and the services for parenting were inconsistent and lacking.

Conclusions:

Women who are mothers and also users of mental health services do prize motherhood though facing special challenges in managing the contradictory aspects of their dual identity. Hearing their voices are essential for service provision and ensuring adequate mental health needs. Strategies to understand and address their unmet needs are critical for the well-being of both mother and child.

Keywords: severe mental illness, motherhood, qualitative

References:

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- Dolman, C., Jones, I., & Howard, L. M. (2013). Pre-conception to parenting: a systematic review and meta-synthesis of the qualitative literature on motherhood for women with severe mental illness. *Archives of women's mental health*, *16*(3), 173-196

Online self-help initiatives to extend the reach of the *What Were We Thinking* evidence-based psychoeducation program to prevent postnatal mental health problems

Heather Rowe, Fiona Darling, Michaela Skilney, Janet Michelmore, Jane Fisher

Objectives/Background
Social media are promising means to overcome geographical and other barriers to uptake of mental health promotion. There is abundant pregnancy and parenting advice available online and via phone apps but is it of variable quality. *What Were We Thinking (WWWT)* is an evidence-based gender-informed, psychoeducational program for couples to prevent postnatal common mental disorders. The aim is to describe the development and preliminary evaluation of the professionally-moderated WWW Blog and the free-download WWWT Smartphone app, funded under the Australian Government e-mental health ('Teleweb') initiative, to increase the reach of *WWWT.*

Methods
Development of the Blog rests on evidence that writing about personal experiences of illness or adversity and having access to other people's stories is reassuring, and that reading stories about how others have solved their problems combined with expert guidance assists learning. The Smartphone app is an interactive platform using videos, quizzes with instant tailored feedback. It provides opportunities to acquire new knowledge and skills and to implement and monitor behaviour change.

Results
Preliminary evaluation evidence suggests that these new WWWT platforms increase social participation, optimise peer and professional support and contribute to the prevention of mental health problems during early parenting.

Conclusion/Discussion
Online self-help resources are promising means to overcome the challenge to increase the reach of health promotion programs intended for universal uptake. These resources can fill a gap in accessibility to peer group support, expert advice and evidence-based strategies to prevent postpartum mental health problems.

ROWE HJ, Fisher JRW. Development of a universal psycho-educational intervention to prevent common postpartum mental disorders in primiparous women: a multiple method approach *BMC Public Health* 2010, 10:499.
Fisher J, ROWE H, Wynter K, et al. A gender-informed, psychoeducational program for couples to prevent postnatal common mental disorders among primiparous women: cluster randomised controlled trial. *BMJ Open* 2016;6:e009396.

3 Key words: postpartum mental health; psychoeducation; online

Symposium :

"Training and Implementing the Watch, Wait and Wonder Intervention in Perinatal Mental Health Settings"

First Presentation:

Implementing The Watch, Wait and Wonder Intervention in a Community Based Perinatal and Infant Mental Health Service

Lucinda Smith [1,2], Adaobi Udechuku [1,2]
[1] Raphael Centre, St John of God Healthcare, Berwick
[2] Glow Perinatal Emotional Health and Wellbeing Clinic, Berwick
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Background:
An infants development is mediated through the relationship with their parent. Parental mental health can adversely impact upon infant's development but treating maternal mental illnesses does not necessarily translate to improved outcomes for infants[1] or the parent infant relationship. The WWW [2] intervention has been shown to improve infant attachment security and cognitive capabilities, parenting satisfaction in the parenting role, the parent-infant relationship and reduce parenting stress[3]

WWW has been incorporated into the service model at The Raphael Centre Berwick. Training of other clinicians has been supported by hosting WWW Introductory course in Melbourne in 2016.

This presentation outlines:

- our experience of undertaking WWW Certification
- implementing WWW intervention in a busy community based perinatal/ infant mental health service
- logistical and service level issues - supervision, video recording, service and individual capacity
- holding, containing and maintaining the frame
- what did and didn't work

Illustrative case material including PRCL Classifications and PIRGAS scores will be presented

Discussion:
Improvements in the parent-infant relationship were achieved. Individual and service level considerations including resourcing should be taken into account before embarking on this worthwhile intervention. Avenues to increase clinicians' exposure to training and use of WWW should be explored.

3 Key words: Watch wait wonder, mother-infant relationship

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[1] Forman, D. R. et al. Effective treatment for postpartum depression is not sufficient to improve the developing mother-child relationship. Dev. Psychopathol. 19, 585-602

[2] Muir E., Lojkasek M. and Cohen N. [1999] *Watch, Wait, and Wonder: A Manual Describing a Dyadic Infant-led Approach to Problems in Infancy and Early Childhood* The Hincks-Dellcrest Centre and The Hincks-Dellcrest Institute

[3] Cohen N., Lojkasek M., Muir E., et. al. [1999] *Watch, Wait, and Wonder: Testing the effectiveness of a new approach to mother-infant psychotherapy* Infant Mental Health Journal; 20, 429-451;

References:

Symposium

"Training and Implementing the Watch, Wait and Wonder Intervention in Perinatal Mental Health Settings"

Overall Summary:

Supporting the infant-parent relationship is an essential component of care for parents with a mental illness with research showing the adverse impact of prenatal and postnatal illness on the development of children. There are challenges with implementing interventions with parents whose illness compromises their capacity to care and be responsive to a baby's needs.

In Australia and New Zealand some services are building experience in the use of Watch, Wait and Wonder [WWW] with parents who have a mental illness. Using clinical material, preliminary findings with utilising the intervention in an outpatient perinatal MHS and a specialist Mother Baby Unit will be discussed.

Data using the two Tools from Axis II of DC: 0-3R, the RPCL and PIR-GAS ratings will be presented with relevance to formulation and a clinical window to change in the relationship.

Considerations for use of the intervention include: the intervention's appropriateness, where to see the dyad, when to incorporate this intervention within other aspects of care, what can a dyad manage across the two phases of the intervention and the therapist's capacity to hold the space of the intervention over 16-24 weeks.

WWW is an infant/child led dyadic intervention with an evidence base supporting its capacity to improve infant's self-regulation, cognitive development and attachment security, and parent's levels of depression and sense of competency in their parenting. WWW differently places the baby in an active central role in the therapy with parents supported in observing to become more knowing of them. In the first part of the session the parent is given a number of instructions around following their infant's lead and not taking over the infant's activity. Then a discussion enables the parent to begin to reflect on their observations, experiences and anxieties felt when following their child's lead.

First Presentation:

Title:
Implementing the Watch, Wait and Wonder Intervention in a
Community Based Perinatal and Infant MHS

Presenters:
Lucinda Smith – Clinical Director Raphael Services, St John of God Berwick, Victoria
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Adaobi Udechuku - Clinical Director Raphael Services, St John of God Berwick, Victoria
Adaobi.Udechuku@sjog.org.au
Biography: Doctors Lucinda Smith and Adaobi Udechuku are perinatal psychiatrists working at the Raphael Centre, Berwick since 2006 and 2007 respectively, and have shared the Clinical Director role since 2012. The Raphael Centre is a community based secondary level perinatal and infant mental health service. They provide direct individual and parent-infant dyadic work as well as supervision, training and clinical governance.

Background:

Parental mental health can adversely impact upon infant development but treating parents does not necessarily translate to improved outcomes for infants[1] or the parent infant relationship. WWW[2] has been incorporated into the service model at The Raphael Centre Berwick.
This presentation will use clinical material and outline

- the author's experiences of undertaking WWW Certification
- implementing the intervention in a busy community based perinatal and infant MHS
- logistical and service level issues - supervision, video recording and service and individual capacity
- holding, containing and maintaining the frame
- what did and what didn't work

Discussion:
Improvements in the parent-infant relationship were achieved. Individual and service level considerations including resourcing should be taken into account before embarking on this worthwhile intervention. Avenues to increase clinicians' exposure to training and use of WWW should be explored.

3 Key Words: Watch Wait Wonder, mother-infant interaction

References:
[1] Forman, D. R. et al. Effective treatment for postpartum depression is not sufficient to improve the developing mother-child relationship. Dev. Psychopathol. 19, 585-602
[2] Cohen N., Lojkasek M., Muir E., et. al. [1999] *Watch, Wait, and Wonder: Testing the effectiveness of a new approach to mother-infant psychotherapy* Infant Mental Health Journal; 20, 429-451

Second Presentation:

Title: **Implementing the Watch, Wait and Wonder Intervention in a Mothers and Babies Service**

Presenters:
Liz MacDonald – Perinatal Psychiatrist, Christchurch Mother and Baby Service
Liz.MacDonald@cdhb.health.nz
Fiona Will – Senior Clinical Psychologist, Christchurch Mother and Baby Service
Fiona.Will@cdhb.health.nz

Biography: Dr Liz MacDonald is a perinatal psychiatrist interested in supporting the infant mental health needs of the babies of mothers with moderate to severe mental illness. Fiona Will is a senior Clinical Psychologist and is the Attachment Specialist at the Mother and Baby Service.

Background: The Service is a regional (South Island wide) perinatal service providing out-patient and in-patient care for mothers with mental illness and their infants up to a year after childbirth. For some years the service had supervision around complex cases from E Muir encouraging interest in WWW. The presenters are training in the intervention.

Methods: Implementing WWW with mothers with moderate to severe mental illness has required considerable thought and discussion.
The presenters have additionally found the WWW stance to be a philosophically unifying approach to aid clinicians, in the in-patient setting, with the careful balance between guidance and "watching, waiting and wondering" with the dyad.

Results: Clinical material demonstrating positive outcomes with using WWW and preliminary findings using the WWW stance in an inpatient unit will be presented.

Discussion: Decisions to make the intervention "user friendly" for mother, baby and clinician are reviewed. It is important to understand the baby's experience and the mother's capacity for becoming preoccupied.

3 Key Words: Watch Wait and Wonder, maternal mental illness, in-patient care

References:
Cohen N., Lojkasek M., Muir E. et. al. [2002] *Six-month follow-up of two mother-infant psychotherapies: Convergence of therapeutic outcomes* Infant Mental Health Journal; 23, 4, 361-380
Lojkasek M., Cohen N. and Muir E. [1994] *Where is the infant in infant intervention? A review of the literature on changing troubled mother-infant relationships* Psychotherapy: Theory, Research and Practice; 31, 208-220

Third presentation:

Title:
Training in Watch, Wait, and Wonder for Clinicians in Perinatal Settings

Presenter:

"Training and Implementing the Watch, Wait and Wonder Intervention in Perinatal Mental Health Settings"

Biography:
Dr Denise Guy is a Child Psychiatrist involved with WWW from 1986. The Australasian Training programme for WWW intervention began in 2009. She is President of the New Zealand Affiliate of WAIMH and Trustee of Incredible Families.

Background:
Parenting capacities are affected by mental illness and the infant outcome evidence highlights the need for interventions that improve the infant-parent relationship. Watch, Wait and Wonder is an appropriate intervention to consider. Training improves observational skills and developing a therapeutic stance that is more reflective and less reactive.

Methods:
The Australasian training in WWW will be reviewed with reference to supervision supporting this work in a perinatal mental health setting. This therapy uniquely prioritises the baby's capacity to contribute to relationship change, enables a parent to directly work with their baby and prevents therapist's from intervening in ways that come between a parent and their baby. Reviewing film in supervision is essential.

Results:
The work is complicated and the relationships between the dyads assessed for consideration of WWW concerning. Data addressing this clinically with reference to training will be presented.

Discussion:
Learnings from families, observing film and supervision has influenced the training of clinicians from perinatal settings so that they in turn can engage with families to achieve positive outcomes.

Key Words: Training, Watch Wait Wonder, Supervision

References:

Muir E., Lojkasek M. and Cohen N. [1999] *Watch, Wait, and Wonder: A Manual Describing a Dyadic Infant-led Approach to Problems in Infancy and Early Childhood* The Hincks-Dellcrest Centre and The Hincks-Dellcrest Institute
Psychotherapy: Theory, Research and Practice; 31, 208-220
Muir E. [1992] *Watching, Waiting, and Wondering: Applying psychoanalytic principals to mother-infant intervention* Infant Mental Health Journal; 13, 319-328

– Title: Deprivation, Deficiency, Denial – the toxic trio of meal times. A model of early intervention in feeding difficulties for the under threes.

– Authors' names and affiliations: Silvina Diaz-Bonino, Perinatal Parent Infant, Child and Adolescent Psychotherapist; Tavistock &NELFT

– Email of the first author: silvina.diazbonino@gmail.com

Paper statement: This paper is concerned with the evaluation and efficacy of a model of early identification and intervention of feeding difficulties in the zero to three group. The intervention is informed by child development research, psychoanalytic infant observation and video feedback. Video clips of a clinical case will be used to illustrate the working method. This model of early detection and intervention in feeding difficulties fills a gap in public health provision for the under threes. It also offers a model that adjusts its use to the workforce of integrated children's services provision. Further research is required to offer this provision for older children addressing their different emotional, relational and developmental needs.

-Title: Deprivation, Deficiency, Denial – the toxic trio of meal times. A model of early intervention in feeding difficulties for the under threes.

– Introduction: This paper is concerned with the evaluation and efficacy of a model of early identification and intervention of feeding difficulties in the zero to three group. The intervention is informed by child development research, psychoanalytic infant observation and video feedback

– Method: The intervention offers eight video recorded sessions of semi structured “tea time” pretend play. Sessions 1 to 4 are offered without food. At this point observational or video feedback is offered to parents to discuss emerging themes. Sessions 5 to 8 introduce real food in the play. The work progresses until a final feedback session is offered to the parents. Follow up is available and parents are advised to be in touch if they identify a need to do so. The model addresses a public health need for a model of integrated early intervention of feeding difficulties in under threes.

– Results/discussion: This model offers a treatment tool for the early identification and intervention in of feeding difficulties for the under threes. It is suitable for use in parent infant psychodynamic psychotherapies as well as interventions informed by child development research. Small children respond to the task of the treatment plan with appropriate adjustments. This relies on the child’s capacity for familiarization and his models of learning. The adjustments the child makes are in alignment with child development perspective. This in turn favours the model’s outcome.

– Keywords (up to three): feeding, anorexia, solids

Practice Based Evidence from the National Perinatal Anxiety & Depression Helpline

Jenni Richardson, Terri Smith
PANDA Perinatal Anxiety & Depression Australia

Objectives/Background

Drawing on comprehensive data from PANDA's National Helpline this presentation will enrich our understanding of the lived experience of perinatal anxiety and depression: who is seeking help, what has contributed to their need for help and why do they seek help. This will provide greater awareness of what sits beneath the surface of the women and men encountered in clinical practice and inform enquiry about their emotional and mental wellbeing.

Methods

With over 1000 calls per month we record the results of a bio/psycho /social and full risk assessment. We also record what prompts calls to the Helpline, what are the primary concerns for these families and what obstacles they have faced prior to engaging with the Helpline. This quantitative and qualitative data together with stories and feedback from service users, has been reviewed in detail. The lived experience voice is rich and can add to traditional evidence.

Results

Data from PANDA's National Helpline[1] confirms the generally accepted understanding that previous mental illness is the leading risk factor for perinatal anxiety and depression. For callers to the Helpline obstetric complication, existing medical conditions, unwell baby and maternal age (<25; >40) are also key factors. We see that just 52% of callers have shared their experience with their partner and only 22% have told their doctor. This and other data will be shared.

Conclusion/Discussion

Listening to the experiences of those that use our service provides invaluable information. This data will provide an additional perspective and potentially the missing link between evidence based practice and engaging effectively with new families experiencing challenges to emotional and mental wellbeing across Australia.

Key Words

Addressing psycho/social risk factors
Interventions
Practice based wisdom

References

[1] PANDA - Perinatal Anxiety & Depression Australia Client Service Record System

Identifying Prenatal Programming in the Prenatal Period

Catherine Monk, PhD[1,2], Jonathan Posner, MD[1,2], Tianshu Feng, MS[2], Jiook Cha, PhD[1,2], Seonjoo Lee, PhD[2], Amy Krain Roy, PhD[3], Izabela Krupska, MA[2], Bradley S. Peterson, MD[4], Frances A. Champagne, PhD[5], Ravi Bansal, PhD[4], Hanna Gustaffson, BA[1], Elizabeth Raffanello, MA[2], Jay Gingrich, MD[1,2], PhD, Clare McCormack, PhD[1], Benjamin Tycko, MD, PhD[6].

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[3]Department of Psychology, Fordham University, New York, NY;
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Objectives/Background
In conjunction with genetic factors and the postnatal environment, maternal distress during pregnancy is associated with increased risk of psychopathology and poor neurodevelopmental outcomes in children[1]. The mechanisms underlying this association, however, remain unclear. Two studies were conducted investigating different processes by which this transmission may occur.

Methods
In Study One, maternal distress and salivary cortisol were examined in relation to fetal movement and heart rate, and DNA methylation of three glucocorticoid pathway genes—HSD11B2, NR3C1, and FKBP5—in term placentas (n=61).

In Study Two, resting state functional MRI (fMRI) and diffusion MRI was used to examine functional and structural connectivity within amygdala–prefrontal circuits in infants with (n=20) and without (n=44) in utero exposure to prenatal maternal depression.

Results
In Study One, Perceived stress (Perceived Stress Scale), but not cortisol, was associated with altered CpG methylation in placentas. Alteration in placental DNA methylation, and in turn reduction in typical fetal behaviour, was identified as a candidate mediator of prenatal mood effects on the future child.

In Study Two, atypical amygdala–prefrontal connectivity in infants exposed to prenatal maternal depression was observed. A mechanistic account relating prenatal maternal depression to a fetal behavior was described: amygdala-PFC connectivity is altered, which in turn, up–regulates fetal heart rate reactivity to *in utero* perturbations resulting from maternal ANS response.

Conclusion/Discussion
For the first time, the effects of pregnant women's distress on the fetus and epigenetic changes in placental genes have been linked in Study One. Study Two additionally has provided the first data directly linking fetal MRI with behavior, demonstrating atypical amygdala-prefrontal connectivity in infants exposed to maternal depression. Together, these findings provide promising accounts of mechanisms by which maternal distress may have lasting effects on future child neurobehavioral functioning, supporting decades of research on the developmental origins of health and disease[2].

Key words: prenatal programming; stress; depression

References

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2. Bale TL: Epigenetic and transgenerational reprogramming of brain development. Nat Rev Neurosci 2015; 16:332–344.

Early life experiences of infants with heart disease and their parents: Psychobiological pathways of influence and for intervention.

Nadine Kasparian[1,2], Claudia Nielson-Jones[1,2], Vivette Glover[3], Dianne Swinsburg[1,2], Karen Walker[4,5], Nadia Badawi[4,5], Marie-Paule Austin[6], Bryanne Barnett[7], Kerry-Ann Grant[8], Edwin Kirk[1,9], David Winlaw[2,5] and Gary Sholler[2,5]

1. Discipline of Paediatrics, School of Women's and Children's Health, UNSW Medicine, The University of New South Wales, Sydney, NSW, Australia.
2. Heart Centre for Children, The Sydney Children's Hospitals Network Cardiac Service (Westmead and Randwick), Sydney, NSW, Australia.
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4. Grace Centre for Newborn Care, The Children's Hospital at Westmead, Sydney, NSW, Australia.
5. Discipline of Child and Adolescent Health, Sydney Medical School, The University of Sydney, NSW, Australia.
6. School of Psychiatry, UNSW Medicine, The University of New South Wales, Sydney, NSW, Australia.
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Background: Congenital heart disease (CHD) affects 1 in 100 newborns and contributes significantly to disease-related disability. Over 50% of babies with complex CHD are diagnosed antenatally. These infants experience uncommon and painful events, such as separation from their mother at birth, urgent transfer to intensive care, and invasive medical procedures.[1] This can have profound developmental consequences, with early life experiences shaping brain development, the immune system, and responses to stress.[2] This prospective cohort study examines: the prevalence and predictors of psychological morbidity in parents following fetal or postnatal CHD diagnosis, and the association between parental anxiety/stress during pregnancy and infant socioemotional, biobehavioural and neurodevelopmental outcomes.

Methods: Parents of babies with a fetal or postnatal diagnosis of complex CHD (n=169), or healthy fetal morphology scan at 18-20 weeks gestation (n=74), complete a clinical interview (3-months post-diagnosis and 12-months postpartum) and validated surveys (3-months post-diagnosis, 3-, 6-, 12-months postpartum). Salivary cortisol is collected as a biomarker of stress reactivity during pregnancy (mothers) and 12-months postpartum (mothers, infants). Mother-infant interaction at 6-months (CARE-Index) and infant outcomes at 12-months (Bayley Scales of Infant Development, Strange Situation Procedure) are also assessed.

Results: Three months post-diagnosis, 46% and 42% of mothers in the fetal and postnatal groups respectively, report anxiety warranting clinical intervention, compared to 17% of mothers of healthy infants. Similarly, 50% and 46% of fathers in the fetal and postnatal groups report anxiety warranting intervention, compared to 13% of fathers of healthy infants. Post-diagnosis, 14% of fathers report self-harm ideation, and up to 67% report moderate-high risk alcohol consumption.

Discussion: Links between parental anxiety and infant outcomes are being investigated. Results will inform models of clinical care for infants with CHD and their parents.

Keywords: Critical illness, antenatal anxiety, infant development.

1. Kasparian NA et al. *MJA*. In press.
2. Sohr-Preston SL et al. *Clin Child Fam Psych*. 2006;9:65-83.

Psychological Characteristics of Participants to a Victorian Surrogacy Arrangement

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Objectives/Background: The Assisted Reproductive Treatment (ART) Act (2008) improved access to surrogacy treatment within Victoria resulting in the establishment of altruistic surrogacy programs within two major ART clinics. Previous psychosocial research conducted overseas has predominantly focused on experiences, characteristics and motivations of surrogates; parent-child relationships and disclosure to surrogate offspring; and changes in mood and trait profiles of the commissioning mothers (van den Akker, 2007). Limitations include the retrospective nature of the research, the exclusion of men, the lack of data on altruistic arrangements, and a lack of theoretical underpinning to studies. The aim of the current study was to identify the psychological characteristics of all parties presenting to a major Victorian ART Clinic to undergo surrogacy treatment. Methods: Commissioning women, commissioning men, surrogate women, surrogate's partners, and egg donors were invited to complete a number of psychometric scales, measuring factors related to personality, mood, intimate relationships, attachment, social support, and the impact of infertility experiences. Results: Fifty participants were included in the study and the relationship between parties was identified as 'friend' followed by 'relative'. Commissioning couples were heavily burdened by their infertility and commissioning women reported a greater reliance on their significant other for support. Commissioning men and women, and surrogates, reported similar levels of care and control within their relationship, which is inconsistent with previous findings that commissioning women and surrogates are more dominant (Braverman et al., 1992). Commissioning men and women, and surrogates were likely to have secure attachment orientations; they were no more anxious in relationships than the general population and in fact, they were significantly less fearful of dependence and interpersonal intimacy. Conclusion/Discussion: The psychological characteristics of participants to an altruistic surrogacy arrangement in Victoria reflect the great emotional and physical investment required and highlight the openness to intimacy that is essential in successfully negotiating this treatment. Differences identified between overseas findings may relate to the non-commercial aspects of the Victorian context.

Fathers' depression and paternal adjustment and paternal attitudes during the transition to parenthood

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Objectives/Background. Fathers' depression may negatively affect the performance of developmental tasks within the transition to parenthood, leading to lower paternal adjustment and less positive paternal attitudes. Paternal adjustment and paternal attitudes can be assessed through the way man views his sexual and marital relationship, the pregnancy, and the baby. The Paternal Adjustment and Paternal Attitudes Questionnaire (PAPA)[1,2], designed to assess these dimensions, was used in this study to analyze the effect of fathers' depression on paternal adjustment and paternal attitudes trajectories, from the 2nd pregnancy trimester to 6-months postpartum. **Methods.** 127 fathers completed a measure of depression and the PAPA at the 2nd pregnancy trimester and 6-months postpartum. **Results.** Effect of fathers' depression was found on paternal adjustment and paternal attitudes. At the 2nd pregnancy trimester, high-depressive fathers revealed less positive attitudes toward sex, lower marital relationship satisfaction, and less positive attitudes toward pregnancy and baby. From the 2nd pregnancy trimester to 6-months postpartum, high-depressive fathers revealed a decrease of positive attitudes toward sex (while low-depressive fathers revealed an increase), a higher decrease of marital relationship satisfaction, and a decrease of positive attitudes toward pregnancy and baby (while low-depressive fathers revealed an increase). **Conclusion/Discussion.** Screening for depression during pregnancy allows to identifying fathers at-risk of paternal adjustment problems and negative paternal attitudes during the transition to parenthood, and the PAPA can adequately assess these dimensions.

Keywords: fathers' depression; paternal adjustment and paternal attitudes; transition to parenthood.

References

1.Marks, M. N., Wieck, A., Checkley, S. A., & Kumar, R. (1992). Contribution of psychological and social factors to psychotic and non-psychotic relapse after

childbirth in women with previous histories of affective disorder. *Journal of Affective Disorders, 29,* 253-264. doi:10.1016/0165-0327(92)90110-R

2.Pinto, T. M., Samorinha, C., Tendais, I., Nunes-Costa, R., & Figueiredo, B. (2015). Paternal Adjustment and Paternal Attitudes Questionnaire: Antenatal and Postnatal Portuguese Versions. *Assessment, first online.* doi:10.1177/1073191115621794

Attachment and coparenting mental representations in fathers during the transition to parenthood

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Objectives/Background. Attachment theory is a useful framework to explore coparenting mental representations, an important developmental task within the transition to parenthood. This study aimed to analyze the association between fathers' attachment orientations (avoidance and anxiety) and fathers' mental representations of coparenting, from the first trimester of pregnancy to six months postpartum[1]. **Methods.** Eighty-six fathers recruited at the first trimester of pregnancy completed self-report measures of attachment and coparenting mental representations[2] at the first and third trimester of pregnancy, and at one and six months postpartum. Growth curve models were performed. **Results.** From the first trimester of pregnancy to six months postpartum, higher attachment avoidance was associated with (1) a higher decrease on perceived coparenting support; (2) an increase on perceived coparenting conflict (while low attachment avoidance was associated with a decrease); and (3) a lower decrease on perceived coparenting disagreement. From the first trimester of pregnancy to six months postpartum, higher attachment anxiety was associated with a higher decrease on perceived coparenting support. **Conclusion/Discussion.** This study highlights how adult's attachment orientations interfere in the way fathers develop their coparenting mental representations, an important developmental task and a dimension of psychological adjustment within the transition to parenthood.

Keywords: attachment; coparenting mental representations; fathers.

References

1. Pinto, T. M., & Figueiredo, B. Attachment and coparenting mental representations in men during the transition to parenthood. *Journal of Personal and Relationships, under review*

2. Pinto, T. M., Figueiredo, B., & Feinberg, M. E. The Coparenting Relationship Scale – Father's Prenatal Version. *Measurement and Evaluation in Counseling and Development, under review*

Childhood adversities in mothers presenting to a Perinatal Mental Health Service (PMHS)

Rebecca Reay[1], Jeff Cubis[1,2] ,Cathy Ringland[2] ,Liana Leach[3], Kelly Mazzer[4] , Kate Carnall [5]

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Objectives: Exposure to childhood maltreatment and trauma increases a woman's risk of developing a mental health disorder during the perinatal period. It is easy for symptoms related to trauma exposure in mothers to be under reported, undetected and/or misdiagnosed (White et al. 2006). Despite knowledge that childhood maltreatment is a risk factor for poor perinatal mental health, we know little about how common childhood adversity is in women accessing perinatal mental health services. The aim of this study was to investigate the prevalence of childhood adversity in women attending a specialist perinatal mental health service, and determine whether exposure was greater in this group than a general population of mothers.

Methods: All mothers who attended an initial assessment at the PMHS clinic between February 2013 to May 2014 were invited to complete a questionnaire on childhood maltreatment. Maltreatment was assessed using questions developed by The PATH through Life Project (Rosenman & Rodgers 2004). We compared the frequency of each childhood adversity for the Perinatal sample (n=101) with a cohort of mothers from the PATH Study (n=708).

Results: Mothers attending the mental health service reported significantly greater rates of childhood emotional abuse, poverty, witnessing physical or sexual abuse, physical neglect and physical abuse by a parent. Furthermore, they were significantly less likely than a normal population to describe their childhood as 'normal' or 'happy'.

Conclusion: Childhood adversities are significantly more common in mothers who are referred to PMHS than mothers in the general community. The implications for trauma-informed approaches are discussed.

3 key words: Childhood adversity, Trauma-informed care, Mental Health Services

References:

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Symposium title: Fatigue, Psychomotor Vigilance and Psychological Functioning in Women Admitted to a Residential Early Parenting Service with Unsettled Infants

Fatigue, sleep disturbance and sleepiness are common experiences for many new parents. These symptoms may be exacerbated in parents of infants with unsettled infant behaviours such as prolonged crying, resistance to settling and frequent night awakenings. In Australia, unsettled infant behaviour is the primary cause of admission of mothers and infants to Residential Early Parenting Services (REPS), which provide comprehensive in-patient multi-disciplinary parentcraft interventions to improve infant settling. Depression and anxiety are common in women admitted to these services, but it is not known to what extent fatigue, sleepiness, depression and anxiety are associated.

In this symposium, we report on data from a unique, collaborative study of mothers admitted with their unsettled infants to the REPS at Masada Private Hospital Mother Baby Unit (MPHMBU), Melbourne, Australia. The aim of the study was to improve understanding of sleep disturbance, sleepiness and fatigue among these women; explore the associations between subjective assessments of these constructs and neurocognitive performance; investigate the associations among sleepiness, fatigue and psychological functioning; and assess the changes in sleep disturbance, sleepiness, fatigue, neurocognitive performance and psychological functioning after a 5-day residential stay at MPHMBU.

In this symposium, we report data from 158 women admitted with their infants to MPHMBU. In Paper 1 Jane Fisher will describe the gaps in existing evidence, elaborate on the MPHMBU psycho-educational program, and present the characteristics of the sample of women. In paper 2 Karen Wynter will explore the associations among fatigue, psychological functioning, quality of intimate partner relationship and other support. In Paper 3 Bei Bei will present associations among sleep disturbance, insomnia, subjective sleep and psychological distress and in Paper 4 Nathan Wilson will report on changes in women's psychomotor vigilance, impulsivity, sleep-related functioning and psychological distress after a 5-day residential stay at MPHMBU.

Australia's Residential Early Parenting Services: Patient Needs And Treatment Approach

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Background

Masada Private Hospital Mother Baby Unit (MPHMBU), one of Australia's unique residential early parenting services, admits 20 women with unsettled infants to a five-night structured psychoeducational program each week. The program provides women with opportunities to acquire the caregiving skills to manage their infants' dysregulated sleep, frequent night time waking and persistent crying; while addressing their psychological and physical health. The aim was to assess fatigue, sleep disturbance and symptoms of depression and anxiety among women admitted to MPHMBU and unsettled behaviours among their infants.

Methods

A consecutive cohort of women admitted to MPHMBU was invited to participate in a survey and computerised perceptual motor tasks on admission day. Routinely collected pre-admission Edinburgh Postnatal Depression Scale (EPDS) scores were extracted from the medical record.

Results

Data were provided by 167 women and 142 consented to extraction of medical record data. They were aged on average 34.3 years (SD 4.2); their babies were on average 8.6 (SD 5.0) months old. Most women were partnered (86.2% married; 12.6% de facto); born in Australia (70.9%), and had a university degree (78.6%). Mean EPDS score was 10.9 (SD 4.7) and 35.5% scored ≥13. Fatigue. More than two-thirds of infants cried and fussed for > 2/24 hours and 72.1% woke more than 3 times overnight. Fatigue-related functional impairment was widespread.

Discussion

These data confirm our prior evidence about unsettled infant behaviours and psychological distress among women admitted to MPHMBU. They provide the first objective evidence of the impact of fatigue. The dangers of occupational fatigue caused by prolonged, irregular working hours, early starting times, shift work and insufficient rest breaks are well-established. These data indicate that occupational fatigue should be assessed routinely among mothers of unsettled infants.

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CARING MUMS – AN IN-HOME EMOTIONAL SUPPORT SERVICE FOR PREGNANT WOMEN AND NEW MOTHERS

BACKGROUND

Caring Mums is a unique program filling a much needed gap in services for pregnant women and new mothers. Through an on going relationship with a trained volunteer, mothers are given emotional support from a volunteer who is an older, experienced mother.

Caring Mums started in Melbourne in 2012 and is a program of the National Council of Jewish Women Australia (Vic). It is a non- denominational program offering a free service to women from all cultural, social and economic backgrounds.

OBJECTIVES

The Caring Mums program aims to provide a preventative, proactive service that may help women avoid developing severe or prolonged mental illness and a sense of isolation. Via the ongoing relationship with a volunteer it supports the mother's feelings of confidence through a sense of empowerment.

METHOD

Volunteers provide companionship, validation and normalisation for the mother. They visit her weekly, for up to 2 hours. They are encouraged to support the mum, providing a safe non-judgmental environment in which the mother can discuss anything. This relationship can continue for up to 12 months from the date of intake.

The coordinator conducts an extensive intake and a similar closure is done when the mother leaves the program. It is using the measurable results of these 2 questionnaires that we have been able to see the positive impact this ongoing relationship has on the new mother.

CONCLUSION

There is no doubt that relationships formed with the volunteers have a positive impact on how new mothers view themselves and how they deal with loss of their previous roles whilst adjusting to their new role. It also has a huge impact on their confidence and their sense of isolation. This further impacts in areas of mental health and attachment.

3 KEYWORDS

early intervention
volunteers
mental health

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The impact of poor mental health on health care costs in the perinatal period

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• Objective / Background

The AIHW estimates that $2.5 billion was spent on maternal conditions (AIHW 2014). The majority of these costs comprise of hospitalisation costs around the time of delivery. However little is known about the impact of poor mental health on health care costs in the perinatal period. While a recent study by Deloitte found the direct costs to the health care system attributable to postnatal depression were $40.52 million, a need for retrospective cost studies with a comparison group of non-depressed mothers was identified. Therefore the aim of this project was to examine more closely the relationship between poor mental health and health service use in the perinatal period using a representative, retrospective data source.

• Methods

This project utilised data collected via the Australian Longitudinal Study on Women's Health, a nationally representative omnibus survey of health and wellbeing established in 1996. Survey data was linked with several administrative datasets including Medicare, the Pharmaceuticals Benefits Scheme, the NSW Perinatal Data Collection and the NSW Admitted Patient Data Collection.

• Results

Data from 2246 births were analysed. Women who had experienced had reported a history of poor mental health were more likely to have higher health care costs in the perinatal period. These costs differed for public and private health care systems.

• Conclusion / Discussion

These findings indicate the need for early interventions for poor mental health prior to reproductive years for women to not only reduce the risk of poor perinatal mental health, but to also reduce health care costs.

• 3 Key words

Health service utilisation, perinatal mental health, depression

- References (minimum of 2)

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Deloitte Access Economics (2012). *The cost of perinatal depression in Australia. Final Report.* Post and Antenatal Depression Association.

T**heme** – Hot topics, **sub-theme** – Implementation and policy

Bio: Anne Clifford is a perinatal and infant clinical nurse specialist at the Elizabeth Clinic. Anne is a credentialed mental health nurse and an experienced mental health clinician. Anne gained a Masters in Infant Mental Health from the NSW Institute of Psychiatry and has also completed a number of parent/infant psychotherapy training courses at the Anna Freud centre in London. Anne has co-authored a number of therapy programs with Dr Caroline Zanetti, and with Caroline providing clinical supervision Anne has facilitated many support and therapeutic group programs. Anne also provides training and supervision to other clinicians.

Symposium: 'It takes a village to raise a child' - but what to do when there is no village?

Supporting the individual within the family and within the village in a multidisciplinary private practice setting.

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Keywords: PIMH service, engagement, relationship

Background: Although screening is now universal, not all women identified at risk make use of services offered to them, with a significant number remaining untreated (Barlow et al. 2005). A complex linking of infant care with personal role changes characterises new motherhood. Women expect this to be challenging, but are often not really aware of how these challenges will feel until they actually become mothers. Despite being aware that PND is serious and not uncommon, many women find it difficult to admit to themselves or others that they feel depressed or anxious.

The sense the woman, or others, makes of first contact with a PIMH service largely determines whether or not they will engage with the service. The clinician must convey a deep sense of recognition and understanding for the person, respect for others involved, and a space free from judgement.

Objective: To describe the process of relating to women wishing to engage with the service, if this is achieved we have overcome her ambivalence and this is very often the main hurdle to engagement.

Conclusion: It is essential that with this initial contact, which may have been very brief, a supportive relationship has been created such that the woman believes that she has found the right service and not just the right person. In a multidisciplinary service this is particularly important as patients will move between programs and practitioners as part of their treatment plan.

References

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Brief infant-parent therapy after MBU admission: Taking action to reduce risk of disorganised attachment

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1. Objectives/Background

Children of mothers with mental illness have been shown to have a range of poorer outcomes developmentally and psychologically. The early attachment relationship is an obvious potential mediator of this outcome (1). A Cochrane review found infant-parent therapy (IPT) to be a promising intervention for improving attachment security in high risk families (2). Mothers requiring Mother-Baby Unit (MBU) admission fall into this category, so IPT designed for these families has the potential to improve the infants' trajectories.

2. Methods

We have established a time-limited (4-8 sessions) outpatient infant-parent therapy clinic for selected dyads following discharge from our MBU. Many of these mothers have personal childhood experience of trauma, and their babies often exhibit markers of disorganised attachment. The AMBIANCE (Atypical Maternal Behaviour Instrument for Assessment and Classification) scale (3) is assisting us to evaluate maternal behaviours evoking disorganised responses and target interventions in sessions accordingly.

3. Results

Some video footage illustrating dissociation and other atypical maternal behaviours in our dyads will be shown. Despite limited sessions, this therapy is often associated with both reductions in these atypical interactions and improvement on standardised measures.

4. Conclusion/Discussion

This intervention has the potential to offer improved outcomes for post-MBU dyads.

5. 3 Key words:

MBU, attachment, infant-parent therapy

6. References

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3. Bronfman E, Parsons E, Lyons-Ruth K. (1993). Atypical Maternal Behavior Instrument for Assessment and Classification (AMBIANCE): Manual for coding disrupted affective communication. Department of Psychiatry; Cambridge Hospital, 1493 Cambridge St., Cambridge, MA 02139.

Title of Abstract:

Postpartum PTSD is a consequence of physical pelvic floor injury after a traumatic vaginal birth.

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Category: PTSD

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Background:

Physical pelvic floor injuries from levator ani muscle avulsion cause reduced quality of life, sexual dysfunction, altered body image and psychological trauma.[1] Post-partum PTSD and dyspareunia have secondary effects on baby bonding and relationships that are highly comorbid alongside depression, anxiety and substance abuse.[2]
Few women are cognizant that muscles holding their pelvic floor together have avulsed during birth resulting in abdominal organ prolapse. Research notes that mothers often manage these injuries by dissociation and silence[3]. Clinicians rarely examine mothers physically to link symptoms of injury with postpartum PTSD.

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Objective:

The aim of this study was to examine associations between physical and psychological trauma after an apparent low- risk vaginal birth.

Methods:

Interviews were carried out in 2013-4 regarding 40 women who sustained major injuries diagnosed on 3D/4D ultrasound after delivery. This is a case study of one woman in this study 5 years later suffering from severe pelvic floor injuries and postpartum PTSD.

Results:

Women complained they had not been prepared for the possibility of a traumatic delivery or informed of potential morbidities.

Participant: *My life has been severely affected by a terrible labour and delivery that left me with a 'blown out pelvic floor' (avulsion). Every aspect of my life has been affected. My partner has left me. It has been a nightmare of no medical accountability, no support, lack of continuity.*

Conclusion: Major somatic pelvic floor trauma can cause postpartum PTSD.

Key words: Avulsion, postpartum, PTSD

References:

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BALINT GROUP OR.... HOLDING THE HOLDERS

Presenter:

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Infancy is increasingly recognised as a crucial period for the development of a range of emotional and psychological capacities. It is a critical period for brain development, capacity to form intimate relationships, empathy and cognition - all of which is complex and necessitates a process of mutual interaction between the infant and the environment [1].

To facilitate healthy infant development, working with mothers who suffer from a range of emotional / psychological problems, our service has been utilizing Balint group supervision for eight years. This is said to benefit the health care professionals in a number of ways: enhancing empathic engagement in patient care[2], providing peer support and having the potential to prevent compassion fatigue and burnout in participants [3]. Moreover, the Balint groups provide health professionals with a deep understanding of their patients' illness experiences and important aspects of themselves as health professionals [4].

It is in the holding of the holders [5] and containing of the contained [6] - within the Balint group, that the healthy infant development is promoted.

Key words: Infant Development, Balint Group, Holding

References:

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GLOW Perinatal Emotional Health & Wellbeing Clinic – a unique concept on the frontier of perinatal and infant mental health.

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Background:
Australian is a world leader in perinatal and infant mental health (pimh). The majority of pimh services and published research are in the public sector. However, 1/3 of women deliver in the private sector[1] and than ¼ of women report the use of complimentary and alternative medicines during pregnancy[2]. Whilst, notable services in the private sector have contributed to the literature[3], the addition of novel private sector pimh models to the literature is warranted.

GLOW Perinatal Emotional Health & Wellbeing Clinic is a new service that addresses the emotional health needs of mothers, fathers, infants and families.
GLOW is unique by:

- Redefining "perinatal period" to from preconception to kindergarten age
- Addressing the health spectrum from wellness to significant psychological illness
- Attending to emotional, physical and social wellbeing and
- All the services available in the one purpose built space removing the need for families to attend multiple practitioners in multiple different locations.[4]

GLOW's multidisciplinary team consists of 14 part-time practitioners and 3 staff members including: perinatal psychiatrists, perinatal and child psychologists, couple's therapists, paediatricians, midwives, early parenting consultants, lactation consultant, dietitian, women's health physiotherapist, massage therapist and yoga teachers.

GLOW's model of care combines standard pimh care - individual, dyadic and group therapy and medication management with novel care options eg:

- 4th Trimester midwifery led group skilling parents to bring their baby home,
- midwife and early parenting consultant in home care.
- infant and neurodevelopmental paediatric care
- complementary and mind-body modalities such as nutrition, infant and perinatal remedial massage, mindfulness and perinatal and parent and infant yoga classes.

Methods:
A database was established of the **GLOW** Cohort including: demographic data, perinatal status, reason for attending/referral and clinical diagnosis where appropriate and treatment/service. The database includes pre and post outcome measures and client and stakeholder satisfaction surveys to enable review and modifications to the model.

Results:
The presentation outlines **GLOW**'s unique service model and descriptive data of the **GLOW** Cohort.

perinatal, mental health, wellness

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[4] http://www.glowclinic.com.au/

Post Traumatic Stress Symptoms (PTSS) and clinical diagnoses and profiles of mothers presenting to a Perinatal Mental Health Service (PMHS)

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Objectives/ background: PTSD in pregnant women has been associated with increased health risk behaviours and depression (1) while trauma affected women are reluctant to divulge this to services (2). High rates of PTSS in women attending PMHS would be expected, but these symptoms are likely to be under reported and unrecognised. To explore this hypothesis diagnoses were reviewed in women presenting to a PMHS who independently reported PTSS and traumatic events.

Methods: Women (N=101) who presented to a Perinatal Mental Health Service were interviewed about traumatic events and PTSS and consented to a later file review. Following an analysis of the self reported instruments and follow up survey, their clinical profile and diagnoses were reviewed.

Results: Women attending the service had high levels of PTSS meeting cutoff levels for caseness (57%). Only 10% of women had a primary diagnosis of PTSD, but a further 20% had this diagnosis as a comorbidity.

Conclusion/Discussion: Significant levels of Post Traumatic Stress Symptoms are present in the majority of women presenting to PMHS although this is not reflected in their diagnostic assessments with only a minority having this as a primary diagnosis.

References:

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3 key words: Post Traumatic Stress Symptoms, Diagnosis, Perinatal Mental Health Services

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The Triple B Pregnancy Cohort Study: Alcohol use during pregnancy and developmental outcomes in infants at 12-months of age

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Affiliations:

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Background: Heavy prenatal alcohol exposure (PAE) is linked with poor developmental outcomes for offspring. However, impacts of low-level alcohol exposure are less clear. Aims of this research were to (a) describe patterns and prevalence of maternal alcohol use across pregnancy, as well as to describe alcohol use by partners, and (b) examine impacts of alcohol exposure on infant development.

Methods: Data were drawn from the Triple B Study, a longitudinal pregnancy cohort study consisting of 1324 women recruited from antenatal clinics. Detailed data on alcohol exposures at each trimester of pregnancy was collected. Alcohol use by partners was also recorded. Infant cognitive, language, motor and socio-emotional development was assessed at 12-months using the Bayley Scales of Infant Development – Third Edition.

Results: Alcohol use in pregnancy was reported by the majority (58.2%) of women. Prior to pregnancy awareness, consumption at binge and heavy levels was common, reported by 17.0% and 14.4% of women respectively. Prevalence of alcohol use decreased later in pregnancy, and rarely occurred above low-levels. Alcohol use was reported by the majority (83.2%) of partners and was highly concordant with alcohol use by mothers.

Results of multivariate regression methods (controlling for maternal demographics, parental IQ, infant gender, parent socio-economic status, other drug use, mental health) showed no evidence of harms associated with low-level PAE on cognitive, language or motor outcomes. Low-level exposure in Trimester Two only was associated with slightly higher scores on language and cognitive domains, and slightly lower scores for socio-emotional development.

Discussion/Conclusion: Alcohol use during pregnancy is common, especially in early Trimester One, and is associated with alcohol use by partners. Present results showed no evidence of harm associated with low-level alcohol exposure, yet residual confounding may obscure any potentially small detrimental effects. Findings of this research may alleviate anxiety among women who have consumed alcohol in pregnancy at low levels.

The prevention of postnatal depression: what works for whom – the results of a HTA systematic review realist synthesis

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Background/Objectives: The prevention of PND is an important neglected area, with effort directed towards treatment rather than prevention. It is unclear what makes interventions acceptable to women and what components of interventions make them more likely to succeed, from the perspective of postnatal women. We conducted a HTA systematic review and meta-analysis of interventions to prevent postnatal depression, including a systematic review of qualitative research to provide a detailed service user and service provider perspective on the uptake, acceptability and potential harms of antenatal and postnatal interventions,

Methods: We examined the main service models for prevention of PND in relation to the underlying programme theory and mechanisms, with a focus on group- and individual-based approaches (realist synthesis). The 'Best Fit Realist Review' Framework approach provided for inclusion of additional inductive elements once the deductive stage of synthesis was complete.

Results: The review engaged with 96 studies relating to 13 separate intervention programmes. This evidence base confirmed the presence of features and components considered important by women within existing group- or individual-based interventions: continuity of care, recruitment, training, matching, provider support/involvement, and building trusting relationships.

Discussion/Conclusions: We believe that each intervention, current or planned, should be evaluated against the list of strategies considered helpful by women who avoided PND. The findings of the qualitative review may therefore make a major contribution to design of future interventions.

Key words: Preventive interventions, postnatal depression, qualitative systematic review

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Carroll C, Booth A, Leaviss J, Rick J. 'Best fit' framework synthesis: refining the method. BMC Med Res Methodol 2013;13:37. http://dx.doi.org/10.1186/1471-2288-13-37

International Marcé Conference, September 26-28, 2016

"Frontiers in Perinatal Mental Health - looking to the future"

Theme: Creative Arts - Full oral presentation

Abstract

'I'm not right': Students' evaluation of the film 'Beyond Baby Blue' as an educational resource

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Objective/Background

Increasing evidence indicates that healthcare professionals and students lack knowledge and confidence to support women with mental health conditions (McCauley et.al 2011; Kahn 2015; Hauck, et.al 2015). This paper presents the findings of an evaluation of the film 'Beyond Baby Blue' produced as a learning resource for students and healthcare professionals. Commissioned by Best Beginnings UK, produced by White Boat TV, and with a screen play developed from accounts of women with post natal depression, the film focuses on the deteriorating health of a young mother who is experiencing postnatal depression.

Methodology

Ethical approval was sought and approved from the University Ethics Committee at London South Bank University. Focus groups were undertaken with 16 senior students (11 student midwives and five student health visitors), to explore the extent to which the film 'Beyond Baby Blue' contributed to students' knowledge and understanding of perinatal mental health. Each focus group discussion was digitally recorded and lasted up to 90 minutes.

Results

The film was described as powerful and emotional in terms of how it stimulated discussion and reflection on experiences; which highlighted a number of issues in relation to the current provision of care; the role of healthcare professionals; improvements needed in care and the issue of education and training.

Conclusion

Students agreed that the film was a good learning resource with its portrayal of a realistic and credible account of women's experiences within the current healthcare system; and a powerful medium for learning and teaching healthcare professionals and students, supported by facilitated reflection.

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International Marcé Conference, September 26-28, 2016

"Frontiers in Perinatal Mental Health - looking to the future"

Theme: Creative Arts - Full oral presentation

Abstract

'I'm not right': Students' evaluation of the film 'Beyond Baby Blue' as an educational resource

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Objective/Background

Increasing evidence indicates that healthcare professionals and students lack knowledge and confidence to support women with mental health conditions (McCauley et.al 2011; Kahn 2015; Hauck, et.al 2015). This paper presents the findings of an evaluation of the film 'Beyond Baby Blue' produced as a learning resource for students and healthcare professionals. Commissioned by Best Beginnings UK, produced by White Boat TV, and with a screen play developed from accounts of women with post natal depression, the film focuses on the deteriorating health of a young mother who is experiencing postnatal depression.

Methodology

Ethical approval was sought and approved from the University Ethics Committee at London South Bank University. Focus groups were undertaken with 16 senior students (11 student midwives and five student health visitors), to explore the extent to which the film 'Beyond Baby Blue' contributed to students' knowledge and understanding of perinatal mental health. Each focus group discussion was digitally recorded and lasted up to 90 minutes.

Results

The film was described as powerful and emotional in terms of how it stimulated discussion and reflection on experiences; which highlighted a number of issues in relation to the current provision of care; the role of healthcare professionals; improvements needed in care and the issue of education and training.

Conclusion

Students agreed that the film was a good learning resource with its portrayal of a realistic and credible account of women's experiences within the current healthcare system; and a powerful medium for learning and teaching healthcare professionals and students, supported by facilitated reflection.

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The effectiveness of interventions to prevent postnatal depression: HTA systematic review, evidence synthesis and meta-analysis

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Background/Objectives: Postnatal depression (PND) is a major depressive disorder in the year following childbirth, which impacts on women, their infants and their families. A range of interventions have been developed to prevent PND. We aimed to evaluate the clinical effectiveness of antenatal and postnatal interventions for pregnant and postnatal women to prevent PND.

Methods: We applied rigorous methods of systematic reviewing of quantitative studies, evidence synthesis and decision-analytic modelling to evaluate the preventive impact on women, infants and families. Two reviewers independently screened titles and abstracts with consensus agreement. We undertook quality assessment. Preventive interventions for pregnant women and women in the first 6 postnatal weeks were included. All outcomes were included. The quantitative evidence was synthesised using network meta-analyses.

Results: From 3072 records identified, 122 papers (86 trials) were included in the quantitative review. The results were inconclusive. The most beneficial interventions appeared to be midwifery redesigned postnatal care, person-centred approach-based and cognitive–behavioural therapy-based intervention, interpersonal psychotherapy-based intervention, education on preparing for parenting, promoting parent–infant interaction, and peer support.

Discussion/Conclusions: Interventions warrant replication within randomised controlled trials.

Key words: Preventive interventions, postnatal depression, systematic review and meta-analysis

References: Morrell CJ, Sutcliffe P, Booth A, Stevens J, Scope A, Stevenson M, et al. A systematic review, evidence synthesis and meta-analysis of quantitative and qualitative studies evaluating the effectiveness, cost-effectiveness, safety and acceptability of interventions to prevent postnatal depression. *Health Technol Assess* 2016;20(X).

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Title: Does the Edinburgh Postnatal Depression Scale Measure the Same Constructs Across Time?

Educational Objectives: To understand how the underlying structure of the Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987) may vary over time, and how this variation may reflect differences other than changes in an individual's distress levels.

Purpose: The EPDS is the most widely used measure for screening for depression in perinatal populations. A weakness is that its factor structure is inconsistent across studies. This variation may reflect that the EPDS is in fact measuring different constructs across studies. The present study aimed to determine whether the EPDS factor structure remained stable (invariant) in the same individuals reporting on their levels of distress across two testing occasions.

Methods: Data were analysed for 636 postpartum inpatient females who were administered the EPDS at admission and discharge from a psychiatric mother and baby unit. Exploratory factor analyses (EFAs) and confirmatory factor analyses (CFAs) were conducted separately on admission and discharge data to determine the optimal factor structure at each time point.

Results: The EFAs and CFAs supported a two-factor model at admission and a three-factor model at discharge. Given that the EPDS did not demonstrate an invariant number of factors, no further tests of measurement invariance were conducted.

Conclusions: The EPDS does not appear to be invariant from admission to discharge. One possible explanation is that individuals may respond differently to items on the EPDS depending on their level of distress. If EPDS scores do not reflect the same constructs across individuals and/or time, then scores may not be comparable across different groups or time

points. Furthermore, using a specific cut-off score to detect depression across population samples may be problematic. The EPDS may benefit from revision if these inconsistencies are replicated in other perinatal populations.

Key words: EPDS, assessment, postpartum depression

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Nadia K. Cunningham[1] , Philippa M. Brown[2], Andrew C. Page[1]

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Title: The structure of negative emotional states in a postpartum inpatient sample

Background. Depression and anxiety disorders exhibit comorbidity, and the same relationships have been observed in postpartum samples. The tripartite model posits that anxiety and depression overlap due to shared and unique symptoms clusters. The present study tested whether the tripartite model adequately described the structure of anxiety and depression symptoms in a postpartum sample.

Methods. The sample consisted of 663 postpartum psychiatric inpatients who completed self-reported questionnaires assessing symptoms of anxiety and depression.

Results. Confirmatory factor analysis revealed that a three-factor model consistent with the tripartite model provided a good fit to anxiety/depression data. This model consisted of three factors: positive affect, negative affect, and autonomic arousal. Positive affect was related to depressive diagnoses and negatively related to anxiety diagnoses; autonomic arousal was related to anxiety diagnoses; and negative affect was uniquely related to mixed anxiety-depressive diagnoses.

Conclusions. Postpartum anxiety and depression appear to be characterised by three differentiable symptom clusters. Postpartum anxiety, depression, and mixed anxiety-depressive diagnoses are differentially associated with these symptom clusters. These

findings suggest that the tripartite model may be useful in guiding assessment, differentiation, and treatment of postpartum emotional disorders.

Key words: Postpartum depression, postpartum anxiety, assessment

Cunningham, N. K., Brown, P. M., & Page, A. C. (2016). The structure of negative emotional states in a postpartum inpatient sample. *Journal of affective disorders*, *192*, 11-21.

The cost-effectiveness of interventions to prevent postnatal depression: HTA systematic review, evidence synthesis and meta-analysis

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Background/Objectives: The long term economic cost of perinatal mental health problems is £8.1bn. This serious burden for women, infants and society requires attention to prevent the progression of intergenerational problems and to reduce the huge financial burden to health care and society. Information is needed about the more cost-effective interventions. The aims of this study were to evaluate the cost-effectiveness of antenatal and postnatal interventions to prevent PND in pregnant and postnatal women.

Methods: We undertook a systematic review of economic evaluations in the prevention of postnatal depression and identified evidence needed to populate an economic model and to determine the potential value of collecting further data on input parameters (expected value of information analysis). A mathematical model was constructed to explore the cost-effectiveness of interventions contained within a NMA versus usual care. An area under the curve approach was employed alongside mapping from the EPDS values to a preference-based utility score (Short Form 6-Dimensions). The time horizon was 1 year. Expected value of partial perfect information analyses were undertaken for efficacy data and for mapping the EPDS values to utility.

Results: No economic evaluations were identified as appropriate for answering the decision problem hence a de novo model was constructed. The cost of the interventions relative to usual care ranged from cost saving to an increase of £1200 per woman.

Discussion/Conclusions: Interventions warrant replication within randomised controlled trials.

Key words: Economic evaluation, postnatal depression, prevention

References: Morrell CJ, Sutcliffe P, Booth A, Stevens J, Scope A, Stevenson M, et al. A systematic review, evidence synthesis and meta-analysis of quantitative and qualitative studies evaluating the effectiveness, cost-effectiveness, safety and acceptability of interventions to prevent postnatal depression. *Health Technol Assess* 2016;20(X).
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Psychiatric problems and concerns among husbands of women admitted to a Mother - Baby Psychiatry Unit and the effectiveness of a single group intervention

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Background: Husbands of mothers admitted in mother baby units (MBU) receive little attention during this difficult period. This study assessed spouses of women with postpartum severe mental illness for their own psychological problems and concerns and the role of a single group intervention in enhancing support.

Methods: 30 spouses of women admitted to an inpatient MBU in India were interviewed and assessed for psychological distress and concerns using a qualitative interview. Those with distress were subsequently examined by a clinician and an ICD 10 psychiatric diagnosis made. A single group session consisting of psycho education about role of spouses in treatment, contraception, enhancing support for self and stress management techniques was provided to the spouses and its effectiveness studied.

Results: The mean age spouses was 20-40 years and majority were from lower socioeconomic status. Concerns included - health of mother and baby (37%)(11), financial problems (2), (7%), gender of the baby(1) (3%), mother infant bonding problems (1) (3%), course of illness, compliance to treatment, dysfunction due to illness and marital problems. 17% (5) of the spouses self reported being perpetrators of domestic violence. 20% (6) said that they were not providing adequate support . 30%* had a psychiatric diagnosis. Substance use disorder was seen in 13% (4), adjustment disorder in 10%(3) and 7% (2) had personality disorders.
After the single session group intervention, 40% (12)of the spouses were in regular touch with the treating team, 10%(3) reported improved marital functioning and 40% (12) had better understanding about illness and accompanied mothers for regular treatment.

Conclusions: Husbands of women with postpartum mental illness have their own concerns and may also have mental health needs. Brief interventions may help in enhancing support to the mothers following discharge. MBUs must address the unmet needs of fathers in addition to those of the mother infant dyad.

Key words: spouse, fathers, mother-baby unit, group intervention

Refernces

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The City Mental Illness Stigma Scale: development of a scale to measure stigma of perinatal mental illness

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Full Oral Presentation

Abstract

Objectives/background: Stigma is a major barrier to care for some women with perinatal mental illness (Bilszta et al., 2010; Kingston et al., 2015). There is no psychometric scale that measures how women may experience the unique aspects of perinatal mental illness stigma. Therefore, this study aimed to develop and validate a scale to measure perceived stigma for perinatal mental illness by women.

Methods: A draft scale of 30 items was developed from a literature review. Women with perinatal mental illness (n = 279) were recruited to complete the City Mental Illness Stigma Scale.

Results: Concurrent validity was measured using the Internal Stigma of Mental Illness Scale. Factor analysis was used to create the final scale. The final 15-item City Mental Illness Stigma Scale has a three-factor structure: perceived external stigma, internal stigma and disclosure stigma. The scale accounted for 62% of the variance and had good internal reliability and concurrent validity.

Conclusion/discussion: The City Mental Illness Stigma Scale appears to be a valid measure which could provide a useful tool for clinical practice and research regarding stigma and perinatal mental illness, including the prevalence and characteristics of stigma. This research can be used to inform interventions for reducing or addressing the stigma experienced by some women with perinatal mental illness.

Keywords: perinatal depression, mental illness stigma, stigma scale.

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Title:
Training in Watch, Wait, and Wonder for Clinicians in Perinatal Settings

Presenter:
Denise Guy – Coordinator Watch, Wait and Wonder Training in Australasia, Clinical Senior Lecturer Department of Psychological Medicine, Otago University, Christchurch
d.guy125@gmail.com

Biography:
Dr Denise Guy is a Child Psychiatrist involved with WWW from 1986. The Australasian Training programme for WWW intervention began in 2009. She is President of the New Zealand Affiliate of WAIMH and Trustee of Incredible Families.

Background:
Parenting capacities are affected by mental illness and the infant outcome evidence highlights the need for interventions that improve the infant-parent relationship. Watch, Wait and Wonder is an appropriate intervention to consider. Training improves observational skills and developing a therapeutic stance that is more reflective and less reactive.

Methods:
The Australasian training in WWW will be reviewed with reference to supervision supporting this work in a perinatal mental health setting. This therapy uniquely prioritises the baby's capacity to contribute to relationship change, enables a parent to directly work with their baby and prevents therapist's from intervening in ways that come between a parent and their baby. Reviewing film in supervision is essential.

Results:
The work is complicated and the relationships between the dyads assessed for consideration of WWW concerning. Data addressing this clinically with reference to training will be presented.

Discussion:
Learnings from families, observing film and supervision has influenced the training of clinicians from perinatal settings so that they in turn can engage with families to achieve positive outcomes.

Key Words: Training, Watch Wait Wonder, Supervision

Best Practice Guidelines for Perinatal Depression for Nurses (2016)

Background: Maternal mental health problems, such as perinatal depression, impact 20% of pregnant and postpartum (perinatal) women with potentially deleterious effects to the mother and family. The Registered Nurses' Association of Ontario (RNAO) previously developed a Best Practice Guideline (BPG) for the nursing care of postpartum depression (2005). This presentation summarizes the development of the RNAO BPG (2016) on perinatal depression, which will provide current nursing practice recommendations for screening, assessment, and interventions for perinatal women. It also explores education and training for nurses providing care to this population and how health care organizations and the broader health care system can ensure optimal health promotion and prevention of perinatal depression.

Review process: A panel of experts in perinatal mental health was convened. A comprehensive search strategy was developed and modified by the RNAO research team with consensus from the panel members to guide the systematic review of primary research studies and existing clinical practice guidelines focused on perinatal depression. Expert panel members reviewed the evidence, and recommendations were formulated through panel members' consensus and expert opinion, and external stakeholders' review and feedback.

Implications for practice: Nurses encounter women with depression in all areas of perinatal practice. Implementing the RNAO evidence-based Best Practice Guideline will help those caring for expectant and new mothers to accurately screen for perinatal depressive symptoms, understand effective treatment and prevention interventions, education, and policy.

Symposium

Category: E- mental health, telephone and self-help assessments and treatments

Title of symposium: New technologies and methodologies in perinatal mental health research

Chairperson summary

We are delighted to present a symposium on new research methodologies in perinatal mental health using new technologies. We will present results from a number of primary research studies that utilise innovative research methods, including: (1) a clinical informatics cohort study to determine a) the clinical outcomes of pregnant women with severe mental disorders in contact with mental health services and b) outcomes in women using aripiprazole in pregnancy ; (2) a pilot trial of an electronic patient decision-aid for women considering the use of antidepressants in pregnancy; (3) a qualitative study using innovative data from an internet forum to investigate which factors influence women with bipolar disorder when making decisions about pregnancy and childbirth, and (4) smartphone strategies to enhance and maintain recruitment of perinatal women with insecure immigration status

Speakers: Dr Simone Vigod; Dr Hind Khalifeh; Dr Selina Nath; Clare Dolman; Clare Taylor

Chair: Professor Louise M. Howard

Category: Hot topics – Screening

Title of symposium: Common mental health problems at antenatal booking and acceptability of depression screening

Chairperson summary

We are delighted to present new data from a large perinatal research programme funded by the National Institute for Health Research in England. We will present results from systematic reviews, a new cohort of pregnant women in SE London and a nested qualitative study which aim to investigate: (1) the prevalence of individual mental disorders, across the diagnostic spectrum, among women attending antenatal bookings in a large inner city maternity service; (2) the most effective screening method for identifying mental disorders by midwives in maternity services; (3) the acceptability of routine enquiry for depression in an inner city maternity service where almost half of all women are migrants, and (4) the evidence on migration and perinatal mental health problems.

Speakers: Professor Louise M. Howard; Dr Elizabeth Ryan; Dr Kylee Trevillion; Fraser Anderson

Chair: Professor Louise M. Howard

Abstract:
The prevalence of common mental disorders among women attending antenatal bookings in a large inner city maternity service

Authors:

Louise Howard on behalf of the ESMI team.

Objectives/Background:

There is growing evidence that many women experience mental health problems during pregnancy. Most studies to date have focused on prevalence of mental disorders, particularly depression, in the third trimester. Few studies have explored the prevalence of other common mental disorders in pregnancy.

Methods: Cross-sectional survey of women attending antenatal booking appointments in a large inner city maternity service between November 2014 and June 2016 in London, UK using a diagnostic interview schedule (the Structured Clinical Interview DSM-IV) Mood Disorders, Anxiety Disorders, Eating Disorders and Borderline Personality Disorder. Other measures of possible correlates include socio-demographic characteristics, personality traits, social support and domestic violence.

Results: To be presented (recruitment ends June 2016 so results will be available in September)

Conclusion/Discussion: The results of this study highlight the range of common mental health problems that are prevalent in the early stages of pregnancy; implications for practice and clinical guidelines such as NICE updates will be discussed.

References:
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Howard LM, Megnin-Viggars O, Symington I, Pilling S. Antenatal and Postnatal Mental Health: summary of updated NICE guidance BMJ 2014;349:g7394. doi: http://dx.doi.org/10.1136/bmj.g7394

Giving voice to women with postnatal depression

Warning signs of potential postnatal depression are often missed by health care professionals because there are no clear cut predictors. Jebali (2009) believes that the woman's voice is still missing. In this paper I propose that participatory action research (PAR) will provide that voice and enable those warning signs to be recognised to prevent a long term condition developing

Many studies (Harris 1993, 1994, Almond 2009) have reported several risk factors, biological, psychological and environmental, that contribute to maternal disorders, whilst the specific cause of the disorders remains unclear. However Blows (2011:228) argues that "a hormonal or immune imbalance, stress or a genetic predisposition to mood disorders have all been suggested as contributing factors". It is believed that some women may show signs of maternal disorders, for example not being prepared for the birth, denial of the pregnancy or discussing future plans without inclusion of the baby (Blows 2011).

A participatory action research programme based on Koch and Kralik's interpretation of action research would provide that missing voice. Its focus on storytelling interviews and facilitated participatory action research groups has proven results with similar conditions. The approach is democratic, collaborative and equitable. It involves all persons (facilitators/researchers and participants) in the research process (Koch and Kralik 2006). Spending time with participants and engaging with them regularly is a key part. Strengths are identified, knowledge that each participant brings to the study is valued and women's voices are heard as the distinction between facilitator/researcher and participants is broken down.

This paper will provide health care professionals with an insight into an innovative approach that will assist them in preventing longer term depressive conditions, the benefits being significant reduction in the resource and time implications.

Reference

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Searching for the Genetic Signature of Postpartum Depression With an iPhone App: the U.S. Experience of developing PPD ACT

Samantha Meltzer-Brody[1], Jerry Guintivano[1], Lewis C[1] Holly Krohn[1], Patrick Sullivan[1,2]

[1] University of North Carolina at Chapel Hill, USA
[2] Karolinska Institute, Sweden

Background/Objective: Investigators in the Departments of Psychiatry and Genetics at the University of North Carolina at Chapel Hill sought to develop a novel way to engage women in a genetics research study about PPD. The primary objective is to understand why some women suffer from PPD and others do not – critical knowledge that is needed to find more effective treatments. Methods: The UNC team used Apple ResearchKit technology—an open-source framework that allows researchers to create app-based studies with global reach(1, 2). An app was created called PPD ACT™ that would allow for phenotyping and DNA collection in women with histories of PPD and postpartum psychosis. They worked with the PACT Consortium to develop a consensus opinion on validated measures that could be used in the app. After the app based clinical assessment, certain women based on survey responses are asked to give consent for a genetic phase and to provide DNA samples. DNA will be obtained from a saliva sample using a "spit kit," that is provided through the mail to U.S. participants by the National Institute of Mental Health (NIMH). The US team also partnered with an international advocacy group, Postpartum Progress®, to effectively reach the women that suffer with PPD. Prior to launch, a validation study of the app as compared to a face-to-face clinical interview was performed. Results: We will present data on the validation phase of app development, and also report on the success of the PPD ACT app and lessons learned in recruiting subjects over a 6 month time period. Conclusion: PPD APP is a novel and positively disruptive technology that changes the way study recruitment can happen for large scale global projects. This has the potential to make a significant contribution to our understanding of the genetic signature of PPD and develop new treatments.

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Objective/Background:
PPD – ACT employs the power of the Apple ResearchKit to recruit and assess women with a lifetime history of postpartum depression or postpartum psychosis. In this talk Professor Ian Jones, Director of the National Centre for Mental Health (NCMH) at Cardiff University will describe the process of adapting the app to be part of NCMH recruitment.
Methods:
The PPD ACT iOS app was developed by the University of North Carolina at Chapel Hill as an initiative of the Postpartum Depression: Action Towards Causes and Treatment (PACT) Consortium. It was adapted by the NCMH team to work in the UK and further changes were made following feedback from the Ethics Committee.
Results:
Transatlantic cultural differences – particularly with regard to the health services of the UK and US - necessitated different approaches to be taken. Interestingly in addition, a number of issues that were required by the IRB in the US and that did not cause difficulties in Australia were thought to be problematic by the UK ethics board. Professor Jones will discuss the different approaches taken by the ethics board and update on progress in the UK.
Conclusion:
The need for very large samples to uncover the genetic and environmental contribution to postpartum mood disorders necessitates worldwide collaborations such as PPD ACT. The difficulties of working across national boundaries with different cultures and health services raise a number of issues that have needed to be solved. It is vital that we work through these problems, however, as there is huge potential to make major breakthroughs in our understanding of postpartum mood disorders.

Adverse Life Events Increase Risk for Postpartum Depression: A Large Population Based Epidemiologic Study

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Background and Objective: Trauma and abuse histories may increase the risk of perinatal and postpartum depression and other psychiatric and obstetrical comorbidity(1, 2). We designed an epidemiological population-based cohort study to study if girls experiencing adverse life events in childhood/adolescence are at risk of postpartum psychiatric episodes following childbirth. Methods: Using the Danish population based registers, we identified women born in Denmark between January 1980 and December 1998, and among these women, we identified 129,439 childbirths and 651 subsequent postpartum psychiatric episodes. Early adverse life events identified as exposure variables were: (1) familial disruption, (2) parental somatic illness, (3) parental mental illness, (4) labour market exclusion, (5) parental imprisonment, (6) placement in out-of-home care, (7-8) parental loss (natural or unnatural causes of death), (9) sexual, physiological or mental abuse. The outcome of interest in this study was first occurrence of an in- or outpatient contact 0-6 months (0-182 days) postpartum at a psychiatric treatment facility with any psychiatric diagnoses, ICD-10, F00-F99. We conducted survival analyses using Cox proportional hazard regressions, with the main outcome measure being Hazard Ratios (HRs). Results: Approximately 52% of the study sample experienced some form of early adverse life event. Early life adverse events significantly increased the risk of postpartum depression and other psychiatric disorders. Increasing number of adverse life events increased risk with a threshold effect. We will present data on models that adjust for parity, age and clustering (some women gave birth multiple time during the study period and are not independent) and parental psychopathology. Conclusions: Early adverse life events are associated with increased risk for postpartum psychiatric disorders in a large Danish population register based study. These findings have important implications for identifying women during pregnancy with histories of adverse life events and implementing appropriate monitoring and treatment in the postpartum period.

Keywords: Early adverse life experience, postpartum depression, PTSD

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Perinatal negative thoughts and their association with psychological distress: A theoretical overview

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1. Objectives/Background

Negative thought experiences are arguably the most common characteristic of mental illness. Despite common misconceptions of the joy and happiness associated with new parenthood, many new parents experience negative thoughts. Negative thoughts such as negative appraisals of parenthood or self as parent; or fear for the infant's wellbeing have been reported in both clinical and non-clinical samples of mothers (Hall & Papageorgiou, 2005; Hall & Wittkowski, 2006) and fathers (Wroe et al., 2016). For some new parents, these experiences can be overwhelming and may negatively impact psychological wellbeing and the parenting transition.

2. Methods

A systematic review was conducted in five health and social sciences database to investigate the association between negative thoughts and psychological wellbeing in adults. Negative thought (e.g. negative cognitions, negative thinking) and psychological wellbeing search terms (e.g. depression, anxiety, mood or affective disorder) were used to identify relevant evidence. Studies include those reporting negative thoughts and a psychological outcome measure. All articles were reviewed by two independent reviewers.

3. Results

The evidence systematically collected across studies will be used to provide a timely theoretical overview of negative thoughts and their relationship with psychological distress. Specific characteristics of negative thoughts (e.g. rumination and worry) and their association with varying severities of psychological distress (e.g. depression and anxiety) will be discussed.

4. Conclusion/Discussion

Negative thoughts are an important component of psychological distress in new parents. An evidence-based theoretical overview in this area will help to inform program delivery and professional services invested perinatal mental health care.

Key words; negative thoughts, depression, anxiety, perinatal.

5. References

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Wroe, J., Campbell, L., Fletcher, R., Loughland, C., & May, C. (2015, 29th – 31st October). *Understanding negative thought experiences in recent fathers.* Paper presented at the AAIMHI National Conference 2015 - And father makes three: Father inclusive practice, UNSW.

What happens now makes a difference: Infants made homeless by family violence

Objectives and expected outcomes of the workshop:

Infants and young children are frequently present during episodes of domestic violence. Infants and young children are more likely to experience higher levels of trauma compared to older children but remain under-represented in the trauma literature and underserviced in the community generally (Lieberman et al, 2015).

This presentation provide participants with an overview of a PhD thesis which involved 8 women's Refuges in three different countries to explore how Refuge provides 'refuge' to infants and their mothers post leaving family violence. The presentation will explain the methodology of the research, look at the findings and discuss the implications for practice. This involves what workers within Refuge, as well as what other professionals, including maternal child health nurses, early childhood educators and infant mental health workers may offer this cohort of 'most at risk' infants and their mothers (Bunston, 2015; Bunston & Glennen, 2015).

Key words:

Family Violence, Homelessness, Capitalising on hope

References:

Bunston, W. (2015). Infant-led practice: Responding to infants and their mothers (and fathers) in the aftermath of domestic violence. In N. Stanley & C. Humphreys (Eds.), *Domestic violence and protecting children: New thinking and approaches*. UK: Jessica Kingsley Publishers.

Bunston, W., & Glennen, K. (2015). Holding the baby costs nothing. *DVRCV Advocate, Spring/Summer*, 46-49.

PACT Roll-out in the Context of Public Health Policy in Australia

Jeannette Milgrom[1,2], PhD; Naomi R Wray[3], PhD
[1]Parent-Infant Research Institute, Austin Health, Melbourne, Australia
[2]University of Melbourne, Melbourne, Australia
[3]Queensland Brain Institute, The University of Queensland, Brisbane, Australia

Abstract

Objectives/Background: Efforts over the past 15 years to identify perinatal depression provide the Australian context for roll-out of the PPD-ACT™ App. A national collaboration was initiated by *beyondblue* to investigate feasibility of perinatal depression screening between 2001 and 2006, resulting in a Federal government commitment of $85M to implement universal screening for perinatal depression (The National Perinatal Depression Initiative) focused on screening, pathways to care and workforce training. There remains a need to increase our understanding of the biological basis of perinatal depression and large population studies are a powerful strategy to identify more effective treatments [1].
Methods: Women will be screened using the ResearchKit app, PPD-ACT™ to determine history of post-partum depression (PPD) and will complete an online questionnaire developed with NHMRC funding. The PACT (**P**ostpartum Depression: **A**ction Towards **C**auses and **T**reatment) Consortium led by the US will include Australian and UK collaborators. The Australian collaborators hope to attract funding for collection of DNA spit-samples as part of the international study (50,000 total) which will conduct a genome-wide association study of genetic variants associated with PPD.
Results: An Australian version of the PPD-ACT App is ethically approved, and is downloadable from the Apple store. We will provide an update of progress in Australia including statistics on access to the App, online questionnaire and spit collection. Potential extensions of this project include the relationship of PPD to sleep, and integrated screening and internet treatment (the *MumMoodBooster* program [2]) to provide best-practice treatment and increase reach.
Conclusion/Discussion: The significance of this large population study will be discussed in the context of the potential for new treatments based on the genomic findings.

Keywords: GWAS, postpartum depression, etiology

References

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Early intervention to protect the mother-infant relationship following postnatal depression: A randomised controlled trial

Jeannette Milgrom[1,2], Charlene Holt[1], Alan W Gemmill[1], Jennifer Ericksen[1]

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Abstract

Objective/Background: Around 20% of mothers experience depression in the first postnatal year. Serious sequelae can include disturbances in the mother-infant relationship and poorer long-term cognitive and behavioural outcomes for the child[1]. Surprisingly, treatment of maternal symptoms of postnatal depression only partially improves the mother-infant relationship for the majority of women[2]. Targeted interventions to improve mother-infant relationships following postnatal depression (PND) are necessary but scarce and, of those that exist, the majority are not evaluated in randomised controlled trials (RCTs). This study evaluated a brief targeted mother-infant intervention (HUGS: Happiness Understanding Giving and Sharing), to follow cognitive-behavioural treatment of PND.

Methods: A parallel two-arm RCT (N=77) with follow-up to 6-months post-treatment compared the 4-session HUGS program to a 4-session control playgroup following a 12-session postnatal depression group treatment program.

Results: On a blinded, observer-rated assessment (the PCERA), it was found that nine out of ten subscales showed a trend of more positive mother-infant interactions in the HUGS program (binomial probability $p<.05$). The partial data so far available at 6-month follow-up suggest that women in the HUGS program continue to do better in the functionality of their relationship with their baby.

Conclusion/Discussion: Results suggest that the HUGS program is an effective intervention for women recovering from PND who experience suboptimal interactions with their infants. This is one of the first RCTs of a brief mother-infant intervention for women diagnosed with PND. The HUGS program has the potential to be widely disseminated as it is brief, manualised and highly acceptable.

Keywords: Postnatal depression, mother-infant intervention, RCT

1. Murray, L., et al. (2010). The effects of maternal postnatal depression and child sex on academic performance at age 16 years. *Journal of Child Psychology and Psychiatry, 51,* 1150-1159.
2. Milgrom, J., et al. (2006). Stressful impact of depression on early mother-infant relations. *Stress and Health, 22*, 229-238.

Background: In many countries, as many as 1 in 5 new mothers experiences some type of perinatal mood and anxiety disorder (PMADs). These illnesses frequently go unnoticed and untreated, often with tragic and long-term consequences to both mother and child. Women of every culture, age, income level, and race can develop PMADs with symptoms appearing any time during pregnancy or postpartum. There are effective and well-researched treatment options available to help women recover and mitigate effects on the woman and her family.

Objective: The goal is to increase awareness of maternal mental health issues that will ultimately increase resources to screen, diagnose, treat, and research PMADs through increased international awareness. This presentation will discuss the process, successes, challenges, and engage participants in future social marketing strategies for World Maternal Mental Health Day. International reach and impact will be discussed.

Method: An international task force met via online videoconference in late 2015 to make plans for the inaugural World Maternal Mental Health Day. The task force soon grew to include representatives from around the globe, all with a common goal to increase awareness of and influence policy about maternal mental health.

Result: World Maternal Mental Health Day will be held each year on the first Wednesday of May, close to “Mother’s Day” and “Mental Health Week” in many countries. The first World MMH Day was held May 4, 2016, with a theme of “Maternal Mental Health Matters”. A unique logo was developed and numerous organizations endorsed the event. An international social media campaign included a Twitter Feed starting in Australia, Facebook page, and landing page.

Conclusion: Increased awareness will continue to drive social change with a goal of improving the quality of care for women worldwide who experience all types of PMADs and to reduce the stigma of maternal mental illness.

A TWO-SITE RANDOMIZED CONTROLLED TRIAL OF SERTRALINE, PLACEBO, AND INTERPERSONAL PSYCHOTHERAPY FOR POSTPARTUM DEPRESSION

Michael W. O'Hara, Teri Pearlstein, Caron Zlotnick, & Scott Stuart

Michael W. O'Hara, University of Iowa; Iowa City, Iowa, USA
Teri Pearlstein, Alpert Medical School of Brown University, Women's Medicine Collaborative, Miriam Hospital; Providence, Rhode Island, USA
Caron Zlotnick, Alpert Medical School of Brown University, Women and Infants Hospital, Providence, Rhode Island, USA
Scott Stuart, University of Iowa, Iowa City, Iowa, USA

Background: Interpersonal Psychotherapy and antidepressant medication are common treatments for postpartum depression. Both of these interventions have been evaluated in numerous trials over the past 15-20 years, yet they have not been compared in the same trial. Moreover, there have been few placebo controlled trials of antidepressant medication with a psychotherapy comparator.

Main Objective: A two site randomized double-blind, placebo controlled study was undertaken in eastern Iowa and Providence, RI. The major goal was to determine the equivalency of medication (sertraline) and IPT and to establish their superiority to placebo in diverse samples of postpartum depressed women, including breastfeeding women.

Methods: Participants for the trials were 153 women within the first year postpartum who met DSM-IV criteria for major depressive episode. Eligible participants were randomly assigned to IPT, sertraline, or pill placebo conditions. The placebo condition included parenting education, called Mothercrafting. Each of the interventions was delivered over a 12 week period. Follow-up assessments occurred at 6, 9, and 12 months following randomization. Principal outcomes included depression (HRSD and BDI) and anxiety (HRSA). Random regression analyses were used to evaluate the principal outcomes.

Results: There were no significant differences on measures of depression and anxiety between conditions during the first 12 weeks of the trial or across the follow-up period. Performance of IPT and sertraline was comparable to earlier trials. Performance of placebo was better than many recent trials.

Conclusions: Participants benefited from each of the treatment approaches. Adding parent education to the placebo condition may have improved its performance. The extent to which active medication is necessary for postpartum depressed women remains an open question.

WAWA – "What Am I Worried About": Adapting an Australian intervention for new mothers residing in the community with symptoms of anxiety and depression

Julie Cwikel [1], Orly Sarid [1], Meital Simhi [1], Heather Rowe[2], Jane Fisher[2]

[1] The Center for Women's Health Studies and Promotion and the Spitzer Department of Social Work, Ben-Gurion University of the Negev, Beer-Sheva 84105, Israel

[2]Jean Hailes Research Unit, School of Public Health and Preventive Medicine, Monash University, Melbourne, Victoria, Australia.

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Objectives/Background: Cognitive behavioural interventions have been shown to be an effective verbal therapy for post-natal mental health distress. There is a high prevalence of perinatal mood and anxiety disorder (PMAD) symptoms among new mothers in Israel, particularly in specific ethno-cultural groups. The WAWA program was developed in Australia to provide a low-cost and accessible method for reaching mothers who may not be able to come into clinics for treatment for perinatal mood and anxiety disorders. The aim of the current study was to assess the feasibility, acceptability and safety of the WAWA among community-dwelling women in the first months after the birth of a child.

Methods: A single group pre-and post-test design was selected and women were invited to participate if they met the criteria of: Hebrew-speaking, community-residing, over age 18, without known diagnosed psychiatric conditions and who had given birth to a child within the last three months. Respondents participated in one small group session to explain the purpose of the study and those agreeing signed informed consent. Baseline questionnaires included the General Anxiety Questionnaire (GAD), Depression Anxiety Stress Scale – DASS 21, and Edinburgh Post-natal Depression Scale (EPDS) and socio-demographic data. Participants took part, in groups of three, in an introductory session of 90 minutes. The following four sessions and a follow-up interview were conducted over the phone, individually with a MA level mental health professional who received supervision on her work. At the last session, the respondents filled out the questionnaire a second time.

Results: Ten women participated and provided follow-up data. The sample consisted of married, Jewish women, mean age 31.1 (s.d. 6.3 years, range 22-42), 50% were Israeli born and 50% were immigrants, 70% reported low SES and 60% were religious. All participants had completed at least 12 years of education, average 14.1 (s.d. 2.0 years). While all participants reported that they felt they had some symptoms of PMAD, the EPDS showed that only 40% had scores of 12 and over (mean EPDS 7.8, s.d.=5.5, range 0-14). GAD scores were (mean =6.0, s.d. 4.2), DASS21 (mean=13.3, s.d. 8.4). High correlations were found between the three mental health measures (rs=0.72-0.88) suggesting high multi-collinearity.

Discussion and conclusion: These preliminary findings indicate that the WAWA intervention in Hebrew is feasible, acceptable and safe for use among Israeli women grappling with significant perinatal mood and anxiety disorders. Further research using a randomized controlled trial and a larger sample is warranted.

Key words: Cognitive behavioural therapy, anxiety, perinatal mood and anxiety disorders, phone therapy

1. Austin Parent Infant Unit
    a. Title: Adapting to the Changing Mental Health System While Keeping Families in Mind
    b. Co-Authors: Anne Buist & Revi Nair, University of Melbourne & Austin Health
    Email: a.buist@unimelb.edu.au
    c. Biography: Anne Buist first worked in this unit at Larundel in 1986 and was director at the Mercy MBU and then the Austin until 2015 when next in charge Revi Nair took over
    d. Objective/Background: Review of the changes in mother baby units from the psychiatric hospital environment to the current general hospital
    e. Method: Historical review of changes and summary of unit from 1983 to 2016 with respect to staffing, program and KPI's
    f. Results: The unit is now streamlined with respect to space, staff and length of stay, but has maintained flexibility and changed its focus and now has better links to the community.
    g. Conclusion: The changed name of the unit, to Parent Infant unit, reflects the changes of priority from just mother to her in the context of her relationships and supports and the outcomes for all concerned.
    h. Key words: parent-infant unit
    i. References:

Bilszta, J, Buist A, "Use of Video Feedback Intervention in an Inpatient Perinatal Psychiatric Setting to Improve Maternal Parenting". Archives of Women's Mental Health 2012. www.ncbi.nlm.nih.gov/pubmed/22588508.

Nair, R, Bilszta, J, Salam, N, Shafira, N, Buist, A. Client evaluation of a specialist inpatient parent-infant psychiatric service. Australasian Psychiatry Dec 2010, Vol. 18, No. 6, Pages 573-578: 573-578.

Buist, A, Minto, B, Szego, K, Samhuel, M, Shawyer, L and O'Connor, L. Mother-Baby Psychiatric Units in Australia - The Victorian Experience. Archives of Women's Health 2004;7:1 81-87.

Buist A., Dennerstein L., Burrows G. Review of a Mother and Baby Unit in a Psychiatric Hospital. Australian and New Zealand Journal of Psychiatry, 1990; 24:103.

    j. Nil financial supports

1. Helen Mayo House
    a. Title: Helen Mayo House, South Australia's hub for perinatal mental health
    b. Co-authors: Anne Sved Williams[1,2], Rebecca Hill[1], Georgie Swift[1]
        1. Helen Mayo House, Women's and Children' Health Network, South Australia
        2. University of Adelaide
        Email: Anne.SvedWilliams@sa.gov.au
    c. Biography: Anne Sved Williams has been the Medical Unit Head of Helen Mayo House since 1987, and has helped develop an inpatient unit for severely mentally ill women, which also focuses on the mental health of their infants. She has published journal articles, edited a book and written book chapters relevant to the field as well as undertaking extensive teaching on these topics throughout many parts of Australia, and currently researching borderline personality disorder in perinatal women.
    d. Objective / Background: Helen Mayo House is South Australia's only inpatient mother-baby unit and has developed protocols to best help mentally ill mothers recover whilst also caring for their infants. The unit is unique in that women can be admitted to the unit with their children up to the age of 3 years.
    e. Methods: Research over the last 3 years in the unit has focused on documenting at both admission and discharge the mood, anxiety levels, subjective relationship with infant and relevant personality factors of each woman admitted.
    f. Results: Have shown over time that whilst women improve both in their mood and their perception of parenting competence, personality factors are substantial in their journey. Results will be presented in detail and discussed

    g. Key Works: Mother-baby unit, personality disorder, infant mental health
    h. References (minimum of 2): Nil
    i. No financial conflict: Nil

1. Werribee Mercy Mother-Baby Unit (formerly Mercy MBU at Mercy Hospital for Women)

    a. Title: Mercy Mental Health Mother Baby Unit, a culturally diverse catchment.

    b. Co-authors: Jess Barnes, Nurse Unit Manager. Dr Kristine Mercuri, Consultant Psychiatrist. Email: JBarnes@mercy.com.au

    c. Biography: Jess Barnes a Registered Nurse, holds a post graduate Diploma in Mental Health nursing (La Trobe University). Jess is undertaking her Masters of Infant Mental Health, infant stream, at the University of Melbourne. Dr Kristine Mercuri is a Perinatal Psychiatrist with additional training in mindfulness based group interventions in the perinatal period. She is an honorary lecturer at University of Melbourne and involved in research in intervention programs in the perinatal period at The Royal Womens Hospital, Melbourne.

    d. Objective/Background: A specialist Perinatal Mental Health in patient unit that is located in Werribee, Victoria. Provides specialist perinatal mental health services to women, together with their infants up to 12 months of age. This unit accommodates 8 women and their baby/ babies (under 12moths of age) that are in need of mental health care in the hospital setting. The unit has a focus on the family, and allows for the co-parents/ partner to stay on the unit overnight to participate in care and treatment. Some women/ new mothers require compulsory treatment under the mental health act 2014. This unit aims to provide care in the least restrictive environment and to preserve the mother infant relationship. The unit has a strong focus on the social, emotional, physical and mental health of the infant, as person in their own right. As a specialist unit the unit has large catchment area, essentially one third of the state of Victoria.

    e. Methods: Data was collected from 307 mothers admitted between 1st January 2011 and 31st June 2015 through a self-report measure of depressive symptoms using the Beck Depression Inventory (BDI) and a nursing observation measure of mother-infant outcomes using the Mother and Child Risk Observation (MACRO)

    f. Results: Response rates for the outcome measures were 125 (41%) for women who completed the BDI self-evaluation questionnaire on entry and exit, and 209 (68%) for the women who were evaluated using the MACRO scale on entry and exit. Improvement from entry to exit was seen with statistical and clinical significance in terms of depressive symptoms. MACRO scores showed statistical significance only. These results and others will be further elaborated on during discussion.

    g. Conclusion: It can be seen that in the short term, joint admission of mothers with their infants is highly beneficial in terms of depression outcomes. Interestingly, we did not find clinically significant change in terms of observer-rated mother-infant outcomes.

    h. Key Words: Mother Baby Unit, Infant Mental Health, Mercy Mental Health.

    i. References (minimum of 2): Nil

    j. Financial support: nil

1. Monash Medical Centre Parent Infant Inpatient Unit
    a. Title: Parent Infant Inpatient Unit
    b. Hoopmann, Celeste Monash Medical Centre Email: Celeste.Hoopmann@monashhealth.org
    c. Dr Celeste Hoopmann is the Consultant Psychiatrist on the PIIU at Monash Medical Centre
    d. Objective / Background: This paper will present on the history, current philosophy and presentations to the PIIU at MMC. This is currently a 6 bed unit which accommodates 6 mothers and 6 babies.
    e. Methods: Review the history of the development of the PIIU and recent admissions
    f. Results: A profile of the unit will be presented
    g. Conclusion / Discussion: PIIU at MMC has gone through a recent transformation from MBU to PIIU this and the profile of admissions will be discussed.
    h. • 3 Key words: Parent-Infant; Mother-Baby Unit; Perinatal Mental Health
    i. • References (minimum of 2): Nil
    j. • List of any financial supports: Nil

1. King Edward Memorial Hospital Mother-Baby Unit
    a. Title: Inpatient perinatal mental health in Western Australia: 2007-2016
    b. Presenters: Dr Philippa Brown Head of Department Consultant Psychiatrist, Dr Felice Watt Director of Psychiatry KEMH Email: Felice.Watt@health.wa.gov.au
    c. Biog: Dr Philippa Brown has been an inpatient consultant perinatal psychiatrist since 2000 establishing the current MBU in collaboration with Jon Rampono. Research interests include the use of rating scales in the perinatal period and first episode perinatal psychosis. Dr Felice Watt is a graduate of University of WA and was accepted as a fellow of the New Zealand RANZCP in 1995. Subsequently she worked in private practice, with special interests in long term psychotherapy and perinatal psychiatry. Since 2008 she has worked at Women and Newborn Health Service in the fields of women's mental health and perinatal psychiatry and is currently Director of Psychiatry, Women's Health Clinical Care Unit
    d. Background: Western Australia opened 3 mother and baby beds in 1984 in Graylands Hospital, one of the State's two authorized psychiatric hospitals. In 2007 a purpose built, free standing 8 bedded authorised unit opened in the grounds of the women's hospital KEMH.
    e. Methods: A data base was set up at the opening of the new unit and data has been collected from 1108 patients to date. A PHD thesis by Nadia Cunningham has used the data to look at symptom measurements in commonly used rating scales (see below). Data has been collected from 70 patients with first presentations of psychosis.
    f. Findings: The Unit's staffing levels, funding and programme will be outlined. The demographic, mental health, and obstetric characteristics of the women admitted to the unit will be described. The presentation will focus on the diagnostic groupings and dilemmas of current classification systems, particularly in the context of the ABF environment.
    g. Key words: perinatal, psychosis, mother and baby unit.
    h. References: 1. The Structure of Negative Emotional States in a Postpartum Inpatient Sample. Journal of Affective Disorders 192 • December 2015 N.Cunningham, P.Brown, A.Page 2. Does the Edinburgh Postnatal Depression Scale measure the same constructs across time? Archives of Womens Mental Health 18(6) • December 2014 N.Cunningham, P.Brown, A.Page 3. The structure of emotional symptoms in the postpartum period: Is it unique? Journal of Affective Disorders 151(2) • August 2013 N.Cunningham, P.Brown, J. Brooks, A.Page
    i. Financial: Nil

1. Fiona Stanley Hospital Mother Baby Unit
    a. Title of Abstract: New frontiers in perinatal mental health inpatient care
    b. All Co-authors, institutions, and email addresses: Kristianopulos, D[1]; Devadason, T[1]; Schutte, S[1]; Day, M[1]; Lange, B[1]; Niven, K[1]; di Toro, L[1]; Fenner, S[1]; Galbally, M[1,2,3]
    [1]Fiona Stanley Hospital; [2]Murdoch University; [3]University of Notre Dame
    Contact Email: Donna.Kristianopulos@health.wa.gov.au
    c. Biography Donna Kristianopulos is the Clinical Nurse Specialist for Perinatal Mental Health Services at Fiona Stanley Hospital. She has extensive experience in perinatal mental health in both public and private hospitals in WA.
    d. Objective / Background: Fiona Stanley Mother Baby Unit is the newest of the public mother-baby units in Australia and opened in early 2015 as part of a brand new tertiary hospital for Western Australia. This unit is 8 beds within a 783-bed, $2 billion brand new public hospital the geographical size of 6 city blocks and including dedicated education and research precincts. This unit presents opportunities for new developments in perinatal mental health inpatient care.
    e. Methods: An electronic database has been developed as part of the new unit
    f. Results: The development of the service, database protocol and the admissions over 18 months will be presented.
    g. Conclusion / Discussion Developing a mother-baby unit as part of a new tertiary hospital brings with it challenges but also opportunities to develop in new and innovative directions. Both the challenges and future directions will be discussed.
    h. 3 Key words perinatal mental health; mother-baby units
    i. References (minimum of 2)
        1. Galbally, M; Blankley, G; Power, J; Snellen, M. (2013) Perinatal Mental Health Services: What are they and what do they do?. Australasian Psychiatry. 21(2), 165-170
        2. Galbally M, Snellen M. (2015) Mental Health Disorders During the Perinatal Period. In: Eds Permezel, Walker and Wein. *Obstetrics, Gynaecology and the Newborn*. 4th Ed, Elsevier
        3. Galbally, Lewis, Snellen. Perinatal Mental Health In: Eds. Galbally, Snellen, Lewis: *Psychopharmacology and Pregnancy - Treatment Efficacy, Risks, and Guidelines* 2014
    j. List of any financial supports: Nil

Lithium and breastfeeding women: new approach at the Royal Women's Hospital, Melbourne

Objective/Background: The majority of medicines are compatible with breastfeeding, although until recently lithium (used in bipolar disorder treatment) was considered to be contraindicated for lactating women because of its narrow therapeutic range and toxicity potential.Toxic effects include gastrointestinal pain, diarrhoea, tremor and lethargy.[1] Lithium passes into breast milk at higher concentrations than most medicines and has a long half-life (14-24 hours). Infants eliminate lithium more slowly than adults and long-term effects on breastfed infants are unknown.

However, recent guidelines consider the possibility of supporting mothers on lithium treatment to breastfeed with close infant/maternal monitoring.[2 3]

Method: At the Royal Women's Hospital, a team comprising a lactation consultant, breastfeeding medicine doctor, pharmacist, psychiatrist and neonatal paediatrician have reviewed the literature and developed a Clinical Guideline for the management of breastfeeding women taking lithium. A small number of women have been successfully managed by the team in recent years.

Results: We will present the Clinical Guideline which explains how eligible pregnant women being treated with lithium are identified during pregnancy, antenatal advice provided, and in-hospital postnatal breastfeeding management and early follow up care is organised. Recent case studies will be discussed.

Conclusion/Discussion: Our multidisciplinary team has developed a pathway for women who are being treated wtth lithium to initiate breastfeeding. All feeding options and the known implications of each are discussed with the woman to facilitate shared informed decision-making.

Keywords: breastfeeding, bipolar disorder, medication

References

1. Grandjean EM, Aubry JM. Lithium: updated human knowledge using an evidence-based approach. CNS Drugs 2009;23(5):397-418.
2. Viguera AC, et al. Lithium in breast milk and nursing infants: clinical implications. Am J Psychiatry 2007;164(2):342-45.
3. Austin M-P, et al. Clinical Practice Guidelines for Depression and Related Disorders - Anxiety, Bipolar Disorder and Puerperal Psychosis - in the Perinatal Period. A Guideline for Primary Care Professionals. Melbourne: beyondblue: the national depression initiative, 2011.

Impact of postpartum women's use of psychotropic medicines on breastfeeding outcomes: Findings from the Norwegian Mother and Child Cohort (MoBa) study

Objective/Background

Postpartum women are vulnerable to the onset or relapse of depression and/or anxiety and may require medication, such as selective serotonin reuptake inhibitors (SSRIs).[1] Large studies of maternal psychotropic medicine use and breastfeeding are lacking.[2] Our primary objective was to evaluate the impact of psychotropic medicine use (especially SSRIs) in postpartum women on breastfeeding outcomes.

Methods

This paper is based on data of 58,192 singleton mother-infant pairs from the 'Norwegian Mother and Child Cohort Study (MoBa)' conducted by the Norwegian Institute of Public Health.

Results

The period prevalence of any psychotropic medication use in the first 6 months postpartum was 1.3% (n=759), of which 44% were SSRIs, and benzodiazepines or related drug use was 43%. Women who took psychotropic medication breastfed for a shorter duration (9 months) than women who did not take psychotropic medication (12 months). Women without a previous history of SSRI use were more likely to stop breastfeeding in the first 6 months (hazard ratio [HR] 4.793, 95 % CI: 3.755, 6.118) than women who had taken SSRIs during pregnancy or prior to pregnancy (HR 2.369, 95 % CI: 1.859, 3.017) or women who used SSRIs only during pregnancy (HR 1.359, 95 % CI: 1.194, 1.546) when compared with reference group (no SSRI use postpartum).

Conclusion/Discussion

It is unclear why women using psychotropic medicines have shorter breastfeeding duration than other women, as it could be due to physiological effects of SSRIs or to maternal/physician decision-making.

References

1. Austin M-P, et al. Clinical Practice Guidelines for Depression and Related Disorders - Anxiety, Bipolar Disorder and Puerperal Psychosis - in the Perinatal Period. A Guideline for Primary Care Professionals. Melbourne: beyondblue: the national depression initiative, 2011.

2. Saha MR, Ryan K, Amir LH. Postpartum women's use of medicines and breastfeeding practices: a systematic review. *Int Breastfeed J* 2015;10:28.

Title: TBC

Alain Gregoire, Perinatal Psychiatrist, Founder and Chair UK Maternal Mental Health Alliance

I will briefly summarise the trends in perinatal mental health care in the UK over the past 25 years, with particular emphasis on key lessons for future development, and reflect on the relevance of these to development programmes in other nations and cultures, illustrated by the work being conducted in Japan. Issues highlighted will include highly specialised services (MBUs and specialist community services), improving outcomes for the large population of women with mild-moderate conditions and for the next generation, professional roles, quality assurance, applying political pressure, achieving parity of esteem and effective clinical collaboration across mental health and physical health services.

Submission to the International Marcé Society

Biennial Scientific Conference 2016

Attachment development in the ATP Generation 3 Study: Epigenetic and biological perspectives.

Craig Olsson[1,2,3], Catherine Maud, Jennifer McIntosh[1,2,3], Joanne Ryan[2],

[1]Deakin University, Centre for Social and Early Emotional Development, School of Psychology

[2]Murdoch Children's Research Institute, Population Studies of Adolescents

[3] The University of Melbourne, **Department** of Paediatrics

Symposium Presentation

Background: The *Australian Temperament Project* has followed around 2000 parents (*Generation 1*) and their offspring (*Generation 2*) from birth in 1983 through their first three decades. This paper first describes a multi-faceted approach to the study of cohort offspring (Generation 3) across the first 4 years of life. We demonstrate the potential of this study by presenting new pilot data showing relationships between offspring epigenome-wide methylation profiles and attachment classifications derived through the Strange Situation Protocol at 1 year of age.

Methods: Since 2011, ATP Generation 3 offspring have been identified during pregnancy, with psychosocial assessments made via CATI at the beginning of the third trimester of pregnancy (including fetal neuro-sonography), birth (via State Government Record Linkage), at 8 weeks (including offspring DNA collection) 12months postpartum (including Offspring DNA collection and Strange Situation Procedure (SSP) with mother (Ainsworth et al, 2015)) and 4 years (including offspring DNA collection and SSP with Mother and Father). Data presented in this paper are drawn from a pilot sub-sample of 60 offspring classified as having secure and insecure/disorganised attachment patterns at 12 months postpartum. An Epigenome-Wide-Association-Study (EWAS) was conducted to explore relationships between early attachment patterns and methylation profiles.

Results: Data from the first 150 infant attachment assessments will be profiled. EWAS analyses are currently underway, and early findings will be shared.

Conclusions The study of the relationship between attachment organisation and epigenome-wide methylation involves the meeting of two ground breaking research methodologies, allowing a unique lens on the interaction of environment and genetics in early emotional development of the human infant. We explore our early findings for their implications for knowledge growth and translation.

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Preconception common mental disorder and maternal-infant bonding problems: A prospective cohort study from adolescence

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Aims: Maternal-infant bonding problems have profound implications for maternal mental health and infant physical, cognitive and socio-emotional development. In the Victorian Intergenerational Health Cohort Study (VIHCS) we examined the extent to which common mental disorders (i.e., depression and anxiety) experienced in the decades prior to conception are related to maternal-infant bonding problems during the first year postpartum.

Methods: VIHCS is a follow-up study of participants in the Victorian Adolescent Health Cohort Study (VAHCS; est. 1992). Female VAHCS participants were assessed for common mental disorders nine times during adolescence and young adulthood (14-29 years) and were contacted biannually from age 29-35 to identify pregnancies. At 8-weeks and 12-months postpartum, women were screened for maternal-infant bonding problems and postnatal depression using the Postpartum Bonding Questionnaire (PBQ) and the Edinburgh Postnatal Depression Scale (EPDS), respectively.

Results: A total of 298 women (470 pregnancies) enrolled in VIHCS and completed the 8-week and 12-month postpartum assessments. The majority (64%) had experienced a common mental disorder prior to conception: 20% during adolescence, 15% during young adulthood and 29% during both adolescence and young adulthood. Based on PBQ total scores ≥ 16, higher rates of maternal-infant bonding problems were reported for those with a history of common mental disorder (28%) than those without (13%). After adjusting for postnatal depression, those with a history of common mental disorder during both adolescence and young adulthood were three times more likely to experience a postpartum bonding problem (odds ratio=3.83, 95%, confidence interval=1.45-10.11, $p<0.01$) than those without.

Conclusions: These results identify women with a preconception history of persistent mental disorder as an at risk group for maternal-infant bonding problems. Interventions that promote maternal emotional capacities and resources for bonding prior to pregnancy are needed, particularly for women who are vulnerable as a result of pre-existing mental health problems.

Word Count: 297 Category: Infant attachment/mother-infant interaction

Double trouble: impact of maternal obesity and perinatal mood on offspring neurodevelopment

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One in five women are obese at antenatal booking, implying that many unborn infants are exposed to an obesogenic environment from very early in development. Obesity in pregnancy is associated with adverse outcomes for both mother and child. A meta-analysis demonstrated pregnant women with obesity are more likely to suffer from psychological distress, including symptoms of anxiety and depression, both prenatal and postpartum. This is of concern as prenatal exposure to psychological distress also has negative consequences on infant's future wellbeing. We have examined the interplay between obesity in pregnancy and adverse perinatal mood in a longitudinal study of very severe obesity in pregnancy. Findings from the Hormones and Inflammation in Pregnancy (HIP) study including data from 357 pregnancies in very severely obese (BMI>40) and lean (BMI<25) will be discussed with a particular focus on the neurodevelopmental and neuropsychiatric outcomes in the offspring and consideration of the role of glucocorticoids as a potential underlying mechanism. Our findings suggest developmental programming of early childhood mental health and cognitive development by prenatal exposure to maternal very severe obesity. With rising prevalence of maternal obesity these findings represent a public health concern.

Title: Results from a Phase 2 trial of SAGE-547 in severe postpartum depression

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Abstract:
Objective/Background:
Antidepressants are commonly used to treat PPD, but there are no pharmacological therapies specifically approved for PPD. Following childbirth, the levels of allopregnanolone, a neuroactive steroid drop precipitously[1]; preclinical evidence suggests that this drop contributes to PPD onset[2]. SAGE-547 injection, a proprietary formulation of allopregnanolone, was evaluated for the treatment of severe PPD in a randomized, placebo-controlled Phase 2 trial.

Methods:
The study enrolled 21 patients <6 months postpartum, with severe PPD (HAM-D >26). Patients were randomized 1:1 to either SAGE-547 injection or placebo by IV for 60 h. The primary endpoint was reduction of HAM-D scores versus placebo at the 60 h time point. Patients were followed through 30 days to assess maintenance of effect and safety parameters. Secondary efficacy endpoints included assessment using the Montgomery–Åsberg Depression Rating Scale (MADRS).

Results:
SAGE-547 patients showed a mean HAM-D reduction of greater than 20 points at 60 h. This reduction was 12 points greater than placebo (p=0.008). These improvements began at 24 h and were maintained through the 30 day follow up. Remission from depression (HAM-D ≤7) was achieved for 70% of the SAGE-547 group versus 9% of the placebo group at 60 h (p=0.008) which was maintained through 30 d (p=0.03). SAGE-547 was generally well tolerated, with no serious adverse events, deaths, or discontinuations.

Conclusion/Discussion:
SAGE-547 treated patients demonstrated rapid and sustained reductions in the HAM-D score versus placebo. These data replicate prior open-label data for SAGE-547 in PPD and support ongoing development of this compound and mechanism in PPD.

Key words: Postpartum depression, allopregnanolone, SAGE-547

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Financial Support: Sage Therapeutics, Inc. funded all aspects of the trial.

Title of Abstract: Evidence based practice in the community sector: PANDSI's Pathway to Wellness

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Biography: Nurse and Midwife, PhD thesis in epidemiology (postnatal depression). Research interests: effective interventions for perinatal mental health, sexual health and health services research. President of PANDSI Board 2002-2014. Finalist ACT Women's Awards 2016 for PANDSI work.

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Select Category: Interventions - Mother

ABSTRACT

Objective: Describe Post and Antenatal Depression Support and Information (PANDSI's) Pathway to Wellness and determine its effectiveness.

Background: PANDSI is a community-based NGO providing ACT families with free information, facilitated support groups and referral to appropriate services. The Pathway is based on psychoeducation and exercise principles[1,2]. The Pathway comprises: Telephone Support; Group Support (day & evening); Playgroup; Yoga; Fitness/Support Group; adjunct childcare and Partners Information Sessions.

Methods: Clients complete the EPDS at an intake interview and on exit from PANDSI and before and after each Pathway program.

Results: 250 women access PANDSI services each year and participate in 1-5 programs. The most commonly subscribed program is Telephone Support (1300 hours provided each year). For the cohort, median EPDS scores at intake and exit were 16 (range 7-27) and 6 (range 0-17) respectively. The median reduction in EPDS scores was 10 (range 1-22).

Conclusion / Discussion: PANDSI provides services to a significant proportion of women affected by perinatal mental health conditions each year. Most women who accessed PANDSI's Pathway programs demonstrated meaningful reductions (> 4 points)[3] in EPDS scores. These results suggest that the community sector has a role to play in aiding recovery from PND.

3 Key words: Community, support, efficacy.

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